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The Art of Medicine

WE sometimes suspect that in our eagerness to master the science of medicine we may not give full attention to the art of medicine. Patients credit us with a knowledge of the science, but they come to us for a demonstration of the art—and if we fail to give satisfaction they set us down as being "too scientific." Fatal impression—it cuts us off from our fellowship with the people and places us on a pedestal where we are let alone.

The doctor has diagnosed a rheumatism. He hesitates now, because he really does not believe in the power of any treatment to shorten the attack; and yet he dares not say so, for the family would at once call another doctor if he told his real helplessness.

While he hesitates Sairey Gamp suggests nannyberry tea, and asks him if it will do good. He does not *know* this, and so the suggestion is adopted by default. Grandma advises a buckeye to be carried about, and he feels sure this will do no harm, and accepts. The family friend who does not believe in medicine but does believe in the newest fad strongly advises vibration; another urges electricity; a third hydropathy; three more Christian science, Weltmerism and osteopathy; and finally the druggist, strong in his own knowledge of drugs and doctors, whispers that he has combined the seven best antirheumatics, and the result is a dandy!

All these and others make their suggestions out of the goodness of their hearts, for the benefit of the suffering patient, *and because they divine the truth that the doctor does not know.* And, yet, if he only used his senses and his wits, how dead-easy it is.

He might say: "My dear friends, I recognize the kindly motive behind all your advice, and I hope you realize that I am a big enough man to accept gratefully any of your suggestions that I could use; but the fact is that this case requires a very careful treatment that is fully indicated by his symptoms. You see his bad breath and nausea show that his stomach and bowels must be cleaned out; the acidity shows fermentation that must be stopped; the pain in his joints demands salicylic acid; and this is about all the treatment I can ask him to take at once."

As they see that the doctor knows what he is about they cease to obtrude their own suggestions, and begin to learn something from the Man-Who-Knows.

The Science of Medicine—know it.

The Art of Medicine—practise it.

Do both so well that no competitor, professional or lay, can find room for entrance.

And this reminds me—

The man who employs a mixture of several drugs in the hope that one may hit the mark, or even that the combination may prove useful, is not practising the art of medicine but the art of pharmacy. This is druggists' practice and not physicians' practice. The recognition of disorder in physiologic function and the application of the exact remedies that restore normal function is an art so completely beyond the druggist's ken that he is not even aware that it is in existence. He supposes that a combination of a salicylate with quinine, and resorcin, and guaiac, and rhubarb, and sulphur, since each of these has repute as an antirheumatic, with macrotin thrown in to catch the eclectic and apis for the homeopathist, should just about fill the bill. If each cures rheumatism, who could doubt that all together would cure more cases than either alone? If each of the eight cures 10 percent, can we not cure 80 percent with the mixture?

Quite a natural perception for the druggist; but what about real doctors accepting such reasoning and prescribing the druggist's mixture? Just this reasoning renders the profession helpless therapeutically, and the object of contempt on the part of the drugman, who finds that the little he himself knows about the application of drugs is yet more than the doctor knows.

So to apply salicylic acid, *or* quinine, *or* resorcin, *or* guaiac, *or* sulphur, *or* rhubarb, *or* macrotin, *or* apis, as to give each to the patient who then needs that one remedy, is as we say, far beyond the comprehension of our friend of mortar and pestle as it is of the osteopathist, the suggestioner, the pathist in general who has entered medicine by the short-cut, without spending weary years in traversing the highroad of investigation.

HE'S A FAILURE

Some doctors are full of good qualities, were good students, passed brilliant examinations, and went out from Alma Mater with laurels encircling their brow looking forth with happy anticipation over the world that awaits their coming. Then they don't "come." They linger a time on the horizon and disappear from view. Hunt them up in ten years for a class reunion: One has got a clerkship, one is a loafer, and the third is barely eking out existence in some obscure corner, a poor man, a poorer doctor.

In each instance there is in the make-up a streak of unfitness, a something wanting, the lack of which brings disaster and negates the many really good elements of his character. It may be a lack of push, or an unconsciousness of the truth that a man's abilities are unknown until he makes them known. Laziness bars many from the highest success. Dissipation dims the star of hope and turns aside the steps of many who might otherwise have climbed the hill of fame. With most men it may be summed up as a failure to appreciate the way to success, and to use the means to win it.

The Philistine says that many fail because they lack consecutive capacity. They may startle you with a brilliant flight of fancy, an original idea of lofty meaning, but there it stops. Only exceptional stimuli can arouse the sluggish brain to that height of effort, sustained and thought-directed, that is essential to success. Otherwise his time and his energies are frittered away in trifling employments that mean nothing. The persistent plodder comes out ahead. Once in an age there arises a being who has intuition and industry, who thinks great thoughts and works unceasingly until they take form and body. Then the world has found a new master. But ordinarily the man who succeeds is the worker.

Absolute accuracy in diagnosis is far from being possible. Only the ignorant assert that it is, and only the fools wait for it.—Lawson Tait.

JOHN URI LLOYD ON "ALKALOIDS"

Our friend Lloyd has just issued a pamphlet on "Alkaloids" etc., which is not to be set down as mere commercial literature, published in the furtherance of Lloyd Bros.'

business. It is of much interest historically, giving many details of the early times, when the people revolted against the abuses of the ancient practice, and the day of the "strictly vegetable remedy" began. The incursions of various drug houses are recorded, which introduced lines of extracts, watery, alcoholic and hydroalcoholic, of various degrees of merit, dubbing them "alkaloids," resins, resinoids, etc. Men of high scientific attainments took up these matters, and protested against the attempt to reduce all plant-remedies to one form, and to claim for any one product or educt of the plant the virtues of the whole.

Against such "alkaloids" Professor Lloyd voices his earnest protest. Each plant-remedy, he claims, requires a special treatment to extract and preserve its values exactly as they exist in the parent plant. To assume that an alcoholic extract represents these virtues, in the case of all medicinal plants alike, is monstrous.

The "alkaloids" to which Lloyd has reference are these early, crude preparations, presented at a time when the chemically pure alkaloid of the present day was unknown. Some forty years ago the great Da Costa presented some observations upon narceine; but these are ignored today, because it was impossible at that time to secure such exceptional alkaloids of sufficient purity to afford results of scientific standing. The development of the modern alkaloid is a matter of the last thirty years and dates from the rise of Merck in the chemical world and Burggraeve in therapeutics.

With this movement and with the modern alkaloid Lloyd's present treatise has no relations whatever. He is a man of science and learning, not a commercial agent seeking to vaunt his own goods and decry competitors. Indeed, there is good sense, and a dignity that demands respect, even a knightly courtesy, in the way he declares the truth as he feels it to be such, and holds himself above the plane of an interested or prejudiced advocate.

Rereading this pamphlet we should say that Professor Lloyd has no quarrel with the modern alkaloid. He states his belief frankly, that no single element of any plant fully represents the remedial qualities of the entire plant; and we heartily agree with him. We believe that the early botanic physician who gathered the fresh plant and administered it in decoction got more out of it than any extract or tincture gave him; and we believe the same method would still give the surprising results achieved by these men. Moreover, if one has not the opportunity to get the fresh plants, or if his patient will not take the "tincupful every hour," he can not do better than utilize Lloyd Bros.' excellent line of "specific medicines"—a recommendation that is not so much as hinted at in the pamphlet before us, but is spontaneous with us.

The "alkaloids," resins, resinoids, oleoresins and extracts of the early day, to which Lloyd calls attention, may or may not have represented to a certain extent the virtues of their parent plants. Whatever virtues they themselves possessed were to be ascertained by a study of their effects as administered in varying doses to animals and to man, in health and in disease.

Like the parent plant these misnamed "alkaloids" varied in their remedial effects, with the variable chemistry of nature as exerted during their growth. This variability has been discussed so often that the subject is threadbare. It pertains to Lloyd's specific medicines equally, except insofar as the chemist's art has intervened to standardize nature's variable products by their alkaloidal strength or their physiologic effects.

It is impossible to escape from this difficulty by excluding the principal alkaloids and attributing the plant effect to the others —complex, illy understood and themselves variable in proportion and hence in total effect—because the plant-complex will *not* act the same with the principal actor excluded. Opium deprived of morphine, nux without strychnine, belladonna without atropine, jaborandi without pilocarpine, are *not* true representatives of the parent plant therapeutically. Nor are the "specific medicines" free from the progressive changes occurring in every hydroalcoholic prepara-

tion—evaporation of the menstruum and degeneration of the remedial principles.

The modern alkaloids depend only remotely on their parent plant for their therapeutic application. We employ atropine, aconitine, veratrine, on account of their known powers of acting on the functions of the human body, applying whichever one we know to be capable of correcting the disorder presented by the patient. The botanic source of the alkaloid has no concern to us; whether the "specific medicine" prepared from the plant will do as much is a matter for Lloyd, or any man who wants to utilize that preparation; it is not a matter of interest to us.

Our practice is based on the nearest approximation to certainties as yet developed in pharmacy or therapeutics. Our line of investigation and development may be parallel to Lloyd's, or the two may converge; there is nothing antagonistic between us. We prefer the alkaloids because their powers have been ascertained by direct experiment by the world's great masters of pharmacology, and corrected and extended by clinical trials. We prefer them because, being uniform (since they are pure chemicals), their effects are always the same. We find no such weighty evidence behind the "specifics," but apart from Lloyd's own great authority their clinical application rests for the most on reports from men of unequal attainments, many not versed in pathology, with observations lacking in scientific accuracy, and wanting in precision and in the checks now demanded in such matters. The fact that a drug was given and the patient recovered may mean much or little. If the drug gets a reputation for doing a certain thing, it will long be given for that one thing, even if really valueless. There is a wide gap between the evidence showing the powers of the alkaloids and that on which rests the employment of the "specific medicines."

That is why we prefer the alkaloids. Nevertheless, we are very far from condemning the "specifics," or refusing full credit to the testimony in their favor. This may not be as strong as that favoring the alkaloids, yet it is enough to justify us in utilizing these excellent remedies in many instances, and giving suggestions as to their use a full clinical trial, with mind open to conviction.

This is the gospel of labor.
Ring it, ye bells of the kirk,
The Lord of Love came down from above,
To live with the men who work.
This is the rose he planted,
Here in the thorn-cursed soil;
Heaven is blessed with perfect rest,
But the blessing of earth is toil.

—Henry van Dyke.

MORE TRUST SCHEMES

This is a day of trusts and combinations and now the retail druggist is in the maelstrom of activity. Here and there drugstores are being woven into great chains, according to trust ideas. For instance, we hear that The American Tobacco Company, which has already picked up hundreds of the most valuable retail cigar stores in the country and is constantly establishing new ones in desirable locations, is reaching out a tentacle for retail drugstores in Greater New York and vicinity. It is said to be doing business now as The Lauer Drug Company, and that it will be operated later as The United Chemists' Company, extending its operations throughout the country.

Another enterprise which seems to have had considerable success is The United Drug Company. The nucleus of this organization was about 34 retail druggists, representing as many cities. Today it is said that 2500 cities and towns are represented in the organization, and the movement is spreading. This company not only has its grasp upon the financial management of the different pharmacists but it is also making a series of medicinal remedies of all kinds which they are to handle and exploit. It has its own "patents," also its own candies, its own watches, its own fountain pens, and many other things usually sold at the drugstore are now put out from its own factories. It is interesting to know just where the formulas for its proprietary preparations come from. The following little item, which we reprint, tells the story:

"Here is the system which started the United Drug Company, and it sounds simple enough: A thousand or more physicians, including the leaders of the profession in America, contributed—*more or less unwittingly* [italics ours]—the prescriptions which they have found efficacious in relieving and curing diseases. These were tested in dispensaries in certain great cities, until there were records of hundreds of thousands of cases, by which the best of the prescriptions could be determined. Then the manufacture and distribution of these prescriptions was begun cooperatively."

Of course a thing like this is a great encouragement (?) to the doctor to send his prescriptions to drugstores, especially to the stores of The United Drug Company and other trust organizations of this kind, which deliberately and openly make it a practice to steal the doctors' ideas in order to turn them into nostrums and (as a mere incident) drive the doctor out of business.

Does such a movement encourage *you*, Doctor, to endorse the get-together program which is so popular these days? Is it to subserve interests like these that doctors are being urged to abandon the custom of dispensing their own remedies—possibly compelled by law to give it up—thus giving local pharmacists (maybe of The United Drug Company variety) a "first whack" at commercializable possibilities in the doctor's brains.

In this connection it may be worth while to read an article in the last number of the *J. A. M. A.* on "The American Druggists Syndicate," another trust-idead organization, which is uniting retail drugstores into a compact selling organization for the exploitation of its own "patents" and other specialties.

In its own words, "The American Druggists Syndicate places the profit side of the patent medicine business where it belongs" —with the retail druggist. The "A. D. S.", by its own confession, is also engaged in wholesale peculation of the ideas of the physicians who send prescriptions to its stores. Its members are said to be daily compounding the prescriptions of the most eminent physicians and "they not only compound these prescriptions but they are in daily contact with the patients and thus have an opportunity of watching their results, and those which prove the best by practical tests are forwarded by the druggist member to the A. D. S., and from the thousands presented a competent board of physicians and chemists select the premium prescription and offer it to the public in a ready-made package"—financially interested of course.

Language fails. Why comment at all? We should go no farther except for the fact that the president of the A. D. S. (recently reelected) is also the president of the National Association of Retail Druggists—and it is alleged that the managements of the two organizations are closely allied.

The N. A. R. D., we might add, is very busily engaged in arranging "get-together" meetings with the doctors, in order to win them back to prescription-writing, and the use of the "truly ethical" preparations—in the interest of ethics, "pure and undefiled." The A. D. S. is busily engaged in working over said prescriptions into up-to-date "patents"—saying little about ethics.

Curtain!

Scan your life's work—take it year by year: What did you bring to mankind—what have you added to its welfare—what evils have been bettered because of your zeal —what hearts have you gladdened with a beautiful ideal or warmed with a hope—what sufferers call you blessed —what homes are brighter because of your charity—what souls are stronger because of your philosophies?

BURGGRAEVE'S MISTAKE

I have been studying the works of this great Belgian, tracing the progress of his labors from the inception of his reform work through its stages, and seeking to determine the causes of its but partial success. Why did he not succeed in convincing the mass of the medical profession of its vital importance and then and there establish the art of medicine on a scientific foundation?

Burggraeve was Professor of Surgery in the University of Ghent. Retiring as Emeritus, he devoted his leisure to the medical studies in which his life had been passed. Chance, perhaps, led him to investigate some

remarkable reports on the action of certain drugs as administered in small successive doses, in the treatment of Asiatic cholera, by a physician in St. Petersburg. The results announced were so far in advance of any previously secured that he recognized a new element as entering into the case. This study led him to the discovery of the fundamental principle of scientific prescribing, namely, the recognition of pathologic disorder and its treatment by supplying the agent that directly restored physiologic equilibrium.

Unfortunately he failed to appreciate just wherein lay the chief importance of his work and its revolutionary nature. In developing the corollaries he forgot the theorem. Undoubtedly he was misled by Hahnemann, whose doctrines were then gaining attention; but his principal difficulty lay in the paucity of physiologic knowledge at that day.

Burggraeve recognized the importance of direct prescribing, and hence the necessity of uniformly acting remedial agencies that would always exert the same powers; hence he was driven to the use of the chemically pure single alkaloids(and other active principles) and chemicals. He also recognized the use of minimal doses repeated in swift succession until the desired effect was attained. A few basic therapeutic agents he learned to apply, and some of the most frequently occurring pathologic conditions he recognized; however, his therapeutic armamentarium was scantily supplied, and his view rarely departed from the few functional disorders he first learned to detect.

Yet to Burggraeve we owe the knowledge that spasm and paresis frequently coexist, and that the remedies for both may be administered simultaneously and act selectively, and not antagonistically. Hence we find his prescriptions of hyoscyamine and strychnine, or of aconitine and digitalin, repeated times innumerable. And so frequent are the pathologic conditions to which these combinations apply that it is difficult to say in any given case that the prescription is not justified.

Too good an observer to overlook a cardinal principle, Burggraeve in time got to recognize the importance of fecal toxemia and the necessity of keeping the bowels free, and so the use of laxative salines became a part of his routine treatment. The value of calcium sulphide in diphtheria was also made known to him, but he never realized the deductions therefrom, or the role this salt was capable of playing in other infections.

The key of his work was the treatment of pathologic conditions as they were recognized clinically by the use of direct remedies accurately fitted to meet the presenting indications. But he never saw the importance of this, or realized that it was a revolutionary discovery. To him it appeared so simple a matter, so much a matter of course, that he failed to comprehend that to the bulk of the medical profession it was altogether incomprehensible, and that they neither knew how to see pathologic disorders or to apply remedies so as to cure them and restore physiologic equilibrium. Men who had all their professional lives been accustomed to level their formulas at the name of the disease could not get out of their ruts so easily. On talking to an unusually intelligent and successful practician lately, I received the sad reply: "It is simple and easy enough to you, Doctor, but I can not get the hang of it."

Burggraeve never could understand why this simple and obvious matter was not at once universally accepted without discussion. He forgot the influence of ingrained habit, the distrust which is ever shown to innovators in medicine, especially if their ideas are revolutionary and the suspicion aroused by Hahnemann's founding of a separatist sect. Burggraeve grew impatient and angry, and railed at the profession as represented by "the School," and this quickly crystallized suspicion into distrust, so that the profession drew away from him and his ideas. The medical fraternity refused to discuss his propositions, whereupon he protested vehemently against the "conspiracy of silence."

In truth silence was the only weapon that could be effectively employed against him, since any examination of his principles

could not fail to demonstrate their truth. Then the drug trade was aroused to protect its "vested interests," and then as now there were ways of exerting influences. Woe be to him who presumes to disturb the existing order so far as to threaten to relegate expensive machinery to the scrap-heap. The money-nerve is hypersensitive.

This was Burggraeve's great mistake, that he allowed himself to be thrown into an attitude of opposition to the profession as a mass and arrayed against himself the instinct of caste. His association with Chanteaud enabled opponents to present his proposition as a strictly commercial affair; but this was of less moment, as it was only by this means made practicable.

The keystone of the arch was the unvarying sameness of the drugs, under the name of each; and the perfected granule, always containing exactly the same quantity of medicament of exactly the same quality, was essential to this exactitude which enabled the physician to use them boldly and yet safely in the emergencies he had to treat. Taking time first to test each new supply of drug meant absolute failure to utilize the new method, and by no other means could the certainty be secured.

The difficulty entailed by the French law giving to pharmacists the exclusive right to dispense drugs led to many inconveniences, as detailed in the early clinical reports, where failures followed the substitution of inferior products or fatal delay was experienced in securing supplies. This later was obviated by taking advantage of the clause in the law permitting physicians to dispense twenty doses at a time; and the granules were put up in vials of twenty each, labeled with the name of the medicament.

To this propaganda Burggraeve devoted his fortune and the remainder of his long life. It is to be regretted that his poverty compelled him to descend into commercialism insofar as to peddle his influence among the pharmacists. Had he been made independent and left to disseminate his views without this handicap, it is certain that they would have been listened to with more respect and have done far more good.

The wisdom of those who steadily refused to permit this movement to be sidetracked into a separatist sect is now becoming apparent. All such particularist schools decay. Their journals grow trite and inane. They say their say, and all of it; then having no more to say they repeat, and again repeat. There is no more to be expected in the homeopathist and eclectic periodicals, and they languish. Cut off from the body of the profession, they wither from lack of new blood and new soil.

The principles inaugurated by Burggraeve are leavening the entire body of the profession, and one can scarcely pick up a journal that has not some good alkaloidal matter written by someone not in any way identified with the movement. Men are growing to think along alkaloidal lines, the student is learning therapeutics from this standpoint, and the new drugs are tested through their active principles. The armies of the world are supplied with the portable, instantly available alkaloids. Scientific experiment in pharmacology is founded on the alkaloids; and the gray-haired veteran learns, from experiments fixing the powers of pilocarpine, how to use—jaborandi.

The world will one day place the statue of Burggraeve beside those of Hippocrates and Galen, Sydenham and Harvey, Jenner and Morton, his frailties forgotten, his great work recognized.

There is no defeat except from within. There is really no unsurmountable barrier save your own inherent weakness of purpose.—R. W. Emerson.

LEGISLATING THE DISPENSING DOCTOR OUT OF BUSINESS

You will all remember the Mann bills which were before Congress a year ago, and the "joker" contained in one of them, which would have prevented inter-state commerce in morphine, codeine, cocaine, hyoscine and a number of other powerful drugs, so far as the doctor is concerned, if they had become laws. We fought these bills, or rather one of them, in these columns. It had the strenuous opposition of many medical men, who made their influence felt

through their congressmen, and as a result it was allowed to die quietly.

We wish to give notice now that in all probability this measure will be revived, in some form or other, during the present session of Congress. The bill which will be introduced will aim at a thoroughly worthy object, one whose proper essence has our sympathy and if properly proposed shall have our hearty support—I mean the traffic in habit-forming drugs. These should be kept out of the hands of laymen by all means, and we will join hands in any "square" effort for that purpose; but the interests of the physician, the only man who is competent to judge of when these remedies should be used, and how, should be unhampered. No worthy measure is dignified by sneaking in a "joker" designed to injure the great medical profession.

We wish to urge every reader of CLINICAL MEDICINE, therefore, to write to his congressman and ask him to keep on the lookout for bills of this character. Any measure prohibiting or limiting interstate commerce in habit-forming drugs should be scrutinized with the utmost care. Look out for the joker. Insist upon your congressman being alive to the importance of this matter.

These constant efforts to put the doctor who dispenses his own remedies "out of business," to turn him over to the nearest pharmacist whether he will or not, are mean, unworthy and contemptible. Never will they be successful if they are made in the open. The danger lies in the secret measure, passed while we are asleep. Let us be alive to the danger and "lock the barn-door before the horse is stolen."

Write to your congressman!

Opportunities correspond with almost mathematical accuracy to the ability to use them.—Lillian Whiting.

CLINICAL PATHOLOGY TODAY

Not so very long ago the surgeon and the internist "guessed" that certain conditions were due to certain things—"medicine can never become an exact science" was a statement so often made as to have become almost axiomatic. Even as late as the last decade of the last century the hospital which had a microtome and an incubator, with a few stains and a single microscope, was regarded as "strictly up-to-date," and men who availed themselves of their advantage were regarded as affected by a mild sort of mania, to be tolerated but not approved.

To this day there are doctors who are suspicious of laboratory workers; and it may be possible that too much reliance is placed by some of our leaders upon laboratory methods over the old-fashioned way of "physical diagnosis" by signs and history. Nevertheless, hospitals are being equipped with modern diagnostic apparatus, sometimes so extensive as to be appalling to the uninitiated; and whether we like it or not "laboratory diagnosis" is destined to become more and more prominent during the next few years.

In a recent article (*Merck's Archives*, December, 1909) Dr. O. Hensel, of New York, calls attention to some of the more recent advances in clinical pathology, of great import to the general practician as well as to the surgeon and other specialist; embracing recent progress in general pathology, bacteriology and physiological chemistry. And he predicts that "many important problems in medicine will be solved by serological research, and in not so distant a time serological laboratories with specially trained assistants will be found indispensable, either to carry out important tests or to furnish curative sera." In other words exact methods are taking the place of guesswork, and therapeutic progress is to be based upon precision of dosage, perfect knowledge of pathology and careful laboratory experimentation.

These laboratory investigations promise to lead to most important results in some of the obscure cases in which the question of surgical intervention is of magnitude.

Thus, the Cammidge reaction for the determination of early pancreatic disease (or possibly simple irritation) is now regarded by Kehr of Halberstadt—perhaps the greatest living authority on gall-tract disturbances—as a sufficient indication for immediate operation in cases of known cholelithiasis, "even

where the clinical aspect of the case would call for medicinal or expectant treatment" because implication of the pancreas is far more serious than the primary gallstone disease.

The relation of acidosis to operations is also regarded as one of the recent laboratory discoveries of great value. Serious surgical treatment is not now undertaken, save in emergencies, upon patients with such high acid states of the urine as to indicate faulty elimination through the kidneys, until after the administration of large doses of bicarbonate of sodium for the purpose of rendering the urine alkaline in reaction. If ten grams (150 grains) of sodium bicarbonate daily for two or three days overcomes the acidity the acidosis is of only moderate degree and operation is safe; but if 25 or 30 grains are given each day and the urine still remains acid the administration of any anesthetic will be extremely hazardous. The importance, then, of careful laboratory investigation of the urine in chronic cases cannot be overestimated, particularly when kidney-lesions are suspected to be present.

Again, when fever appears after serious operation the surgeon no longer hastens to open the dressings to inspect the wound. An examination of the blood is first made in the laboratory. This may reveal a latent malaria or another condition explaining the rise in temperature. But if the hematologist reports marked leukocytosis the deduction is that wound-infection is present, providing no other cause of the increase in polynuclear neutrophiles is easily discoverable, and immediate examination of the field of operation is decided upon.

Of even more importance is the hemoglobin-percentage. If a patient be brought into hospital showing extremely pronounced anemia, operation is not performed by the careful, conscientious surgeon until a blood-examination has been made, including the estimation of the amount of hemoglobin present. If there be less than 23 percent of the normal—and one cannot determine this by mere physical inspection, however great and extensive his experience—it is regarded as impossible to administer an anesthetic safely until the general condition of the patient has been improved.

Many lives are being saved by this preliminary laboratory-work that would have been lost only a few years ago in the craze for operating upon all sorts of cases, regardless of the possibility of increasing the chances for recovery by proper preparatory treatment.

Or it may be that blood-examination reveals a markedly low leukocyte-count. Here, especially in abdominal surgery, the value of our knowledge of scientific therapy is easily demonstrable. By the subcutaneous use of nuclein the resisting-power of the peritoneum speedily may be increated twenty times (Mikulicz) and the general blood-impoverishment quickly overcome by the intravenous use of nuclein in normal saline solution (Ward and Lanphear). Is not this a distinct gain for modern clinical pathology.

The value of the tuberculin test for suspected early tuberculosis has been fully proven. Now that a rational and successful treatment for tuberculosis is being wrought out, the recognition of the existence of tuberculosis by laboratory methods is destined to play a most important part in the eradication of this plague of civilization.

While there are some who still doubt that the presence of the spirochæta pallida in the blood is an invariable accompaniment of early syphilis, there are few who now deny that when this is demonstrable by the hematologist, subcutaneous injection or intravenous infusion (Lydston) of mercury will more promptly eradicate the syphilitic virus than is possible in any other way. Others depend upon the Wassermann or Noguchi reactions for cases a little farther advanced (Wassermann's test usually being negative in the early stage of lues); the Noguchi being preferred on account of its simplicity for laboratories not equipped for the complicated Wassermann technic, and besides being regarded (Hensel) as giving the greater percentage of positive results.

By means of these laboratory examinations many disorders of unknown etiology are now shown to be of luetic origin. The

value of this discovery, from a therapeutic standpoint, cannot be overestimated: the necessity for vigorous antisyphilitic treatment being proven upon the one hand, the useless administration of mercury and iodides prevented on the other—not to enumerate the positive harmful effects of these drugs given in huge doses to patients suspected but not known to be affected by syphilis. This advance alone in our methods of diagnosis is sufficient to make the early years of the twentieth century notable in the history of medicine.

In the recognition of obscure typhoid the recent advances in laboratory methods are perhaps most conspicuous. The diazo reaction and the Widal test may both be negative; leukopneia and absence of eosinophiles may not be conclusive, yet the following method of examination, described by Hensel in the article mentioned, may reveal the presence of the distinctive bacteria of typhoid in the blood: "A bandage is applied from the forearm downward, to include one of the fingers near the tip. The tip is sterilized and then punctured, when the blood will flow freely. Twenty to fifty drops are allowed to fall into a test-tube containing about 5 Cc. of sterilized ox-bile. After an incubation of from 12 to 24 hours (in the vest-pocket or some other warm place) a drop of the bile may be examined for motile bacilli."

Very many other advances have been made of late which cannot be here described: examination of contents of the stomach, of the alvine evacuations, of urinary deposits, of fragments of suspicious growths, etc., etc.—all of exceedingly great importance. These methods of positive diagnosis are puzzling indeed to the graduate of but yesterday; yet they constitute a progress in medical science which, coupled with rational, exact therapy, is destined to place internal medicine in the near future upon the same high plane now occupied by modern surgery.

He who does not keep in touch with these advances is not wholly alive to his own interests nor yet to those of his patients. If "the younger generation" is seriously crowding the older practitioner in the field of legitimate competition it is because of the advantages derived from laboratory training; or at least of a knowledge of what the laboratory can reveal, coupled with the ability of getting positive information from laboratory-specialists at small expense and little trouble. Today is the day of experiment; tomorrow the day of positive knowledge.

The star of the unconquered will,
He rises in my breast;
Serene and resolute and still,
And calm and self-possessed.

Oh fear not in a world like this,
And thou shalt know ere long,
Know how sublime a thing it is,
To suffer and be strong.

—H. W. Longfellow.

THE QUESTION OF DOSAGE

Take any acute malady, such as pneumonia: What is it that kills the patient? Evidently the obstruction, the pulmonary paralysis. But if one has recourse at first sight to strychnine, and especially if pushing it to a complete arousing of the vital forces, he will prevent the catastrophe. One must not permit anatomopathologic lesions to be established, such as the organicians plead as an excuse for their failure to do or to try to do.

This applies equally to all inflammations; for what is an inflammation but a lack of antagonism between the moderator nerves and the excitor nerves. Fever, due to an excess of viscosity of the blood, is characterized by a conflagration that devours the whole organism if it is not arrested in time by stifling it under the energy of the proper remedy. Under the influence of a physical or a moral cause the heart precipitates its action and launches the blood with a force incompatible with the physiologic state upon the point or the organ whence the excitation came. It is the excitor nerves that overcome the moderator nerves, the pneumogastric—representative of the animal sphere—that is vanquished by the great sympathetic, representative of the vegetative sphere.

What should be done? Enfeeble the organism in general, by bleeding and low diet? But this only increases more and more the loss of equilibrium between the forces of life, and depresses the balance on the side of death. On the contrary, it is necessary to oppose a tight rein to the courser that runs away—the perturbed heart. For this reason Burggraeve at the debut of acute maladies employed strychnine, adding the appropriate calmants, aconitine, veratrine, hyoscyamine, morphine, and quinine, combined with arsenic or iron.

One does not give a single medicament, but as many as there are indications to fulfil. These may be general or particular. In fever it may be necessary to lower temperature by the incitants and defervescents —strychnine, veratrine, aconitine—and also to combat such symptoms as pain and spasm by morphine, hyoscyamine, atropine; and to reestablish the secretions by digitalin, scillitin, colchicine. In inflammations it is necessary to fortify the organism in general, while one diverts the nervososanguine flood from the point where it tends to gather and produce irreparable disorders. We arrive at the posology, which is the important point, since on the one side we obtain no effect, and on the other we risk poisoning the patient; for with our energetic medicaments the *quantum satis* should be more rigorous than with other remedies which one measures with the eye, so banal are the prescriptions. What matters a gram or less in a potion known to be inoffensive?

It is for this reason that we proceed by minute doses, repeated at intervals so close that the lesion has not time to establish itself, just leaving time for absorption—fifteen minutes as the average. One may go on thus to the therapeutic effect, regardless of the quantity required. Thus, at the debut of a pneumonia twenty or thirty granules of veratrine may be necessary to induce defervescence. Brémond gave a boy of sixteen forty-eight granules of aconitine to obtain resolution of pneumonia.

When strychnine is combined with the defervescents the effects of the latter will be much more prompt than when it is administered alone. In a case of acute rheumatism Burggraeve gave veratrine and strychnine sulphate, a granule each every quarter hour for ten doses; by which time the fever had subsided and the rheumatism was reduced to a simple arthritis, easily managed by iodine applications.

What happens if the fever is allowed to go on, under the pretext that it is the result, the necessary one, of the arthritis? The inflammation fixes itself on the histologic organs, generally on the pericardium.

The question is not as to doses maximal or minimal, but as to the curative effect, and this can be fixed with more security if one proceeds gradually. For very active medicaments the granules are dosed at 1-2 milligram each, without reference to age or sex. The resistance to the remedy depends on the intensity of the disease.

Aconitine in a healthy individual may determine aconitism at the second or third granule, but in an acute pathologic state it can be given in doses relatively enormous before it induces relaxation of the circulation and respiration. Tolerance establishes itself gradually, and thus there is no danger, since when the desired effect is induced the remedy is lessened or stopped.

For instance, with a temperature of 104 degrees we give veratrine every quarter hour; when it has fallen to 102.5°, we make the doses every half hour; and as the fever falls the doses are spaced at every hour, and so on. Without a thermometer one may be guided by the general condition of the patient, the moisture of the skin and slowing of the pulse.

From this it results that one need have no fear in employing alkaloids as powerful as strychnine, aconitine and veratrine at the debut of acute maladies, any more than one would in giving quinine for ague, for *every fever should be broken.*

In surgery the gravity of accidents depends on the traumatic fever, but that is not fatal because it can be treated. Chassaignac instituted for operatives what he called the surgical dissipation (*l'entrainement chirurgical*) by means of aconite given for several days before operation. Helot took the same precaution before a laborious ac-

couchement. So in medicine, where fevers may be foreseen. Niemeyer cited pneumonias brought to resolution without fever, by applying ice and giving veratrine.

While we have faith in the *vis medicatrix naturæ*, we come to her aid. Strychnine is necessary at the debut of acute affections, because it is needed to oppose paralysis of vessels and parenchyma. Strychnine, especially the arsenate, is the vital incitant *par excellence*, which arouses the latent force mentioned by Barthez, and which the ancients recognized when they said that in adynamic maladies the nerve power was bound up in the abdominal ganglions. This force is liberated by strychnine, aconitine, veratrine, hyoscyamine, acting on and calming the vasomotor system. Note the effects of these in acute gastralgia which, without them, would end in gastritis. So in great inflammations, meningitis, pleurisy, carditis, peritonitis, neuralgias of the splanchnic serosa; we must treat them thus, if we do not wish to see the complications that so often render these maladies mortal.

The discovery of the alkaloids has been one of the great facts of contemporary medicine. We are guilty of *lèse humanité* in not employing these agents which chemistry and pharmacodynamics have put at our disposal. Among these we place, in the first line strychnine, which is to individualized living force what electricity is to all nature, an incitant of vitality; and without vital force we can do nothing. People have a false idea of strychnine, because it has been badly employed. If given in paralysis without regard to its nature, as in nerve softening, it will provoke electric shocks not within its scope; but if employed in affections purely dynamic or vital especially if given gradually, it does not give rise to any shock or commotion, but tonifies the tissues. It is the king of vital modifiers.

MORBID SENSIBILITY

We are convinced that the great majority of those complaints which are considered purely mental, such as irritability and shortness of temper, gloominess, melancholy, irresolution, dispondency, and so on, might be greatly remedied, if not entirely removed, by a proper system of temperance and a little of the right kind of medicine. For this reason medical men often have it in their power to confer an immense boon upon many valuable members of society whose lives are rendered wretched by the morbid sensitiveness of mind but having its unsuspected source in a mobid sensibility of the stomach and bowels or the nervous system.

From numerous facts, indeed, which have come under the observation of the writer of these notes, there is no doubt that many strange antipathies, disgusts, caprices of temper, and eccentricities which are considered solely as obliquities of the intellect have their source in bodily disorder.

By a temporary gastric derangement many an enterprise of importance has had its "current turned awry." The philosopher and the metaphysician who know but little of these interrelations of mind and matter have drawn many a false conclusion from and built up many a hypothesis upon the actions of men. Many a happy and lucky thought has sprung from an empty stomach! Many an important undertaking had been ruined by a morsel of undigested pickle. Many a well-laid scheme has failed in execution by a drop of green bile. Many a terrible edict has gone forth in consequence of an irritated gastric nerve. "Clean out, clean up, keep clean."

Nothing is so contagious as enthusiasm. It is the real allegory of the tale of Orpheus. It moves stones, it charms brutes. Enthusiasm is the genius of sincerity and truth accomplishes no victories without.—Bulwer.

DRUNKENNESS CONTAGIOUS

A few years ago a man who had made a lifelong study of alcoholism advanced the proposition that drunkenness was contagious! Men who had no notion of getting drunk fell in with roystering comrades, the microbe was transmitted from man to man, and all got drunk together. A great horse-laugh went up, and the matter was not taken seriously. Nor did the propounder of the argument mean it to be. But it directed

attention to the question of alcoholism, and that was his object. It aroused thought in men who had given none to this topic.

There is contagion in drunkenness, and if similar conditions existed as to any febrile malady, the fact of transmission would not be questioned. Thought and emotion are contagious. Let any man propose to hang a rapist, and a thousand hitherto peaceful, law-abiding citizens are in an instant transformed into a frantic, howling, rabid mob of life-takers.

Let a man in a theater raise the cry of "Fire!" and men trample down women and children and fight like maniacs in the wild rush for the exits.

And then—

When the Trenton was caught in the resistless grasp of the hurricane at Samoa and swept down to certain destruction she had the usual crew of a United States man-of-war; natives of every country in Europe and some from outside of it, gnarled old Scandinavians, stalwart Germans, phlegmatic Hollanders, swarthy Spaniards, agile Frenchmen, jolly Irishmen and canny Scots, passionate Welshmen and stolid English, with a backbone of cool, shrewd Americans. But not a Portuguese fell on his knees and invoked the saints, not a "Guinea" became panicky, not a boy rushed to the boats. Every man remained quietly at his post, the band playing, the men standing at quarters, silent, attentive, ready to respond to any duty.

When the Light Brigade made that wild ride to death and immortal glory, there was the excitement of battle to key the men up for the quick dash. The Trenton's crew faced death without the chance of striking back; not a glorious ride, but quietly standing till the end should come, and not a skulker among four hundred. No laureate immortalized them; in truth, very little notice was taken of the occurrence, for the simple reason that America expects just such discipline from her navy at all times as a matter of course, and gets it. Speak a word of appreciation to one of the heroes of the occasion, and he looks at you much as any ordinary man would were you to congratulate him on having kept out of jail.

Heroism, fear, rage, are emotions that are indeed contagious, and may be imparted by one to multitudes in an instant. And it may be either.

During the Civil War a volunteer was elected lieutenant—to his great annoyance, for he knew he was a coward and would run at the first trial. The time came. The regiment was drawn up in battle array, under fire. In time an opposing line made a charge upon it. The lieutenant saw the line of gray with its shining bayonets coming nearer, and at last found he could not stand it a single moment longer. Flinging down his cap he yelled to his men: "Come on boys, let's meet them half-way!" and started to run, full speed, *toward* the advancing enemy. With one wild yell the regiment took after the officer, the countercharge broke that of the enemy, and at the next dress-parade the lieutenant was promoted for gallantry on the field of battle.

But if this officer had not run *toward* the enemy he would have run *from* him—and the regiment would have followed! Contagious? Well, rather!

The physician who does nothing but expect, is like the general who sits still till the enemy comes to beat him.—Burggraeve.

LIFE AT HIGH PRESSURE

There is one peculiarity about the daily life of the people of this country that is more marked than in the other races, that is the high pressure at which all classes of the community appear to live. Feverish haste to amass wealth, struggles for preferment and promotion, work to retain a certain position if not to improve that position in society, the rush after pleasurable excitement, all these combine to create impatience and unrest in the human mind.

The mind of such a person soon gets into a certain groove from which it becomes impossible to extricate itself, and very soon insomnia, nervous prostration and concomitant results follow, so that the victim, conscious of his utter hopelessness, is compelled to take an absolute rest in order that his nervous system may regain its equilibrium.

Nature is not to be trifled with; she is certainly very patient of neglect; but of one thing we may be perfectly assured and that is, sooner or later she will assert her rights, and that with no uncertain voice. She warns by aches and pains. Then narcotics and stimulants are resorted to to make us forget the monition, until the strain can be borne no longer and there is a collapse.

Another cause of this sudden giving way of vital forces is to be found in the never varying treadmill kind of life so many of us lead year after year, without a change, with nothing to relieve the dread tedium and monotony. Examples of such affronts to nature in the violation of the most simple rules are unfortunately only too numerous, and every doctor has patients whom he knows nothing but absolute rest and change of scene can cure. It is surely time that the "whip and spur" were laid aside, that there should be a cessation of this hurry and drive which, as we have pointed out, can only lead to one inevitable result.

THE STORY OF THE PEANUT SHELLS

As everyone knows, C. W. Post of Battle Creek, Michigan, is not only a maker of breakfast foods, but he is a strong individualist who believes that the trades-unions are a menace to the liberty of the country. Believing this, and being a "natural-born" scrapper for the right, as he sees it, Post, for several years past, has been engaged in a ceaseless warfare against "the Labor Trust," as he likes to call it. Not being able to secure free and untrammeled expression of his opinions on this subject through the regular reading pages of the newspapers he has bought advertising space for this purpose, just as he is accustomed to for the telling of his Postum "story," and he has thus spent hundreds of thousands of dollars in denouncing trades-unionism.

As a result of Post's activities the people now know a whole lot about these organizations: how they are honeycombed with graft, how they obstruct the development of legitimate business, curtail labor's output, hold up manufacturers, graft upon their own membership, and rob the public. Naturally Post is hated by the trades-unionists, and intensely. He employs no union labor, so they can not call out his men, and he defies their efforts at boycotting his products. The latest means of "getting" Post is the widespread publication of the story that a car which was recently wrecked in transmission was found to be loaded with empty peanut shells, which were being shipped from the south to Post's establishment at Battle Creek. This canard probably orginated with President John Fitzgerald of the Chicago Federation of Labor, who, it is said, stated it publicly, as truth.

Post comes back and gives Fitzgerald the lie direct. He denounces Fitzgerald's statement as a deliberate falsehood, an underhanded and cowardly attempt to injure his business, having not the slightest basis in fact. As such an effort it must be regarded. It is significant that this statement about "the peanut shells" is being given wide newspaper publicity. In the "patent inside" of an eastern country paper I find it, and the inference naturally is that labor-unionites are insidiously spreading this lie.

An institution (or a man) which will resort to moral intimidation and to physical force, that will destroy machinery and burn buildings, that will maim and kill if necessary to effect its ends, naturally would not hesitate to spread falsehood for the same purposes.

We admire Post. While we have no enmity toward labor unions, so long as they are conducted in an honest, "live-and-let-live" kind of a way, we have had enough of the tarred end of the stick to sympathize thoroughly with what he is trying to do. He deserves support. A man like Post can not be killed, even with lies. They are a boomerang, every time. Again we *know*, for hasn't this weapon, every weapon that could be thought of, been used (and not simply by labor unions) to put us out of business too?

I am going to drink *two* cups of Postum every morning from this time on, and put myself on a diet of Grape Nuts. Bully for Post!

Alkaloidal Therapeutics

A Toast, Read at the Fifty-Sixth Annual Meeting of the Thurber Medical Association

By C. H. RANDALL, M. D., Franklin, Massachusetts

IT is not only a source of extreme pleasure to me to be present upon this occasion but I regard it as an exceptional privilege and a distinctive honor to be assigned a part in the program of this annual reunion of the Thurber Medical Association.

I am forcibly reminded of the introductory remarks of that great natural orator and champion of the colored race, the late Frederick Douglass, in a speech delivered upon the occasion of an immense gathering at a soldiers' and sailors' mass convention, assembled in the interest of General Grant's second election, following the speeches of a galaxy of the heroes of the civil war and able statesmen of the times. He said:

To Give Color to the Occasion

"After having listened to the able gentlemen who have preceded me, enlightening your understanding, convincing your judgment and charming your senses with their witticisms and bursts of eloquence, it is not without great diffidence and many misgivings, that I shall undertake to address you, and it is only through the most earnest solicitation of these my friends upon the platform that I have consented to do so. But for what reason my presence has been so eagerly sought, or what purpose I am to serve I cannot understand unless it is to give 'color' to the occasion."

I can assure you that it is not without many misgivings and great embarrassment that I shall attempt to draw the "color-line" between galenic and alkaloidal medication before this learned assembly of physicians. You will not expect me to discuss at length the therapy and indications of special drugs, or to weary you with case-histories or statistical reports.

What Statistics Prove

In this connection I am reminded of the young doctor who, while attending a very critical case, was confronted with grave misapprehensions from his patient, who expressed serious doubts of recovery. The doctor exhausted nearly every argument to reassure his patient, except statistics to which in his extremity he finally resorted. Said the doctor:

"I know you will recover; I can prove it by statistics. *Statistics* show that one out of every one hundred recover from this disease. I have already lost ninety-nine cases. You are the last one of the hundred and there is no possibility of a fatal termination."

Very reassuring to the patient!

Statistics are usually more flattering, if less truthful, when compiled for the purpose of floating some favorite prescription in the interests of the manufacturer than in actual practice. The alkaloidist depends upon the

isolated principle of definite strength and its well-known physiological action rather than upon the voluminous reports gleaned from statistics in the prescribing of some famous combination exploited in the interests of the chemist and pharmacist, with the ready-made compound-dosage to fit all patients suffering from a given malady.

Fitting Drug to Patient or Patient to Drug

The problem which confronts us today as successful physicians resolves itself into the simple question: Shall we fit the patient to the dose or the dosage and drug to the patient's requirements?

A traveling salesman for a large manufacturing drug concern recently called my attention to the "big drive" on the "bargain-counter annex" in Blaud's tablets; and incidentally and impressively announced that he had just sold a million tablets to a neighboring hospital (outside of Massachusetts) which enabled him to make "this offer of a lifetime."

A fearful commentary on the medical staff of that institution—unless the salesman lied. They do sometimes.

I do not refer to this in disparagement of Blaud's tablets, but rather to call your attention to the unlimited, unwarrantable and alarming practice of using stock formulæ in bedside practice. Neither do I deny that there are many elegant, palatable, highly scientific and useful medicinal combinations and preparations that stand as shining monuments to the skill of the pharmacist and the art of the chemist, as well as being a great convenience to the practician.

Nevertheless we cannot always afford to introduce the elegant products. The great army of physicians who face the enemy upon the battle-line between life and death pocket their losses and die themselves in poverty and obscurity, while they exploit the products of those who fatten upon their untiring faithfulness to their clientele and sacrificing devotion to professional work and ethical (?) preparations.

I have in my possession a letter written to one of my patients by the manufacturers of T—— who must have learned from the clippings they were buying through a bureau established for that purpose that my patient had suffered from grip. They urged her to buy a bottle of T—— as the preparation *par excellence* in convalescence from those conditions. And, yet, the manufacturer informs you and me that his specialties are sold only on purely ethical (?) lines! What do you know about that?

But to pass from the discussion of "stock" drug treatment. Isn't it a fact that the identity of many of your prescriptions would be lost in the finished products of two or more pharmacists? Why this disparity? Surely it is not the fault of the druggist, but rather the lack of uniformity in and the absence of standardization of the drugs from which they are compounded.

Some Facts Worth Noting

Isn't it a fact that the import duty on crude opium is reckoned on the quantity of morphine which it yields (ranging from three to sixteen percent—I think the standard is nine) rather than on its gross weight?

Isn't it a fact, that while some grades of calisaya bark yield one hundred pounds of the active principle (quinine) to the ton, it requires five tons of other grades to yield the same amount?

Our friend Mulford lays upon our desk a pamphlet calling attention to a superior tincture of digitalis (or "digitol" as he is pleased to designate it) to show us that it is standardized to an active principle of digitalis, leading off with the startling announcement that the importance of standardizing this drug has been shown by the U. S. Public Health and Marine Hospital Service's Bureau of Hygiene, which calls attention to the fact of a 300-percent variation in the strength of digitalis and a 600 percent variation in strophanthus tinctures.

God pity the poor heart then that must depend upon the U. S. P. tinctures for the support of its strength and the regulation of its life current.

What is the remedy? Alkalometry offers a safe, certain, immediate, easily obtainable and direct pathway out from the misty maze of uncertainty to the great highway of per-

fection in production, precision, potency, and accuracy in application of definite principles.

What is an alkaloid? Alkaloids are principles of vegetable origin obtained by first treating the plants with dilute acids and precipitating the resultant solution with ammonia or some other alkaline substance; hence the alkaline form and term alkaloid.

Certain mixed alkaloidal principles were separated from the opium by two French chemists more than a century ago, to be more exact, I think in 1803; it was not however, until 1816, that Sertürner, a German apothecary, discovered and determined the nature of the distinctive alkaloid which he termed morphium, on account of its somniferent properties, and in honor of Morpheus, the god of sleep. This has passed muster with all classes of physicians to the present day under the name of morphine, conforming in name to the terminal ending of the other alkaloids, standing today among the twenty or more other active principles of opium. It is found in the armamentarium of every modern progressive physician.

DR. C. H. RANDALL

I shall not attempt to discuss its therapy. Suffice it to say that the paternal drug was so complex in its combination, so antagonistic in therapeutic effect, so uncertain in its action, that it was and is too perplexing a proposition for practical use; hence the stimulus to the aspiring chemist to isolate a principle which could be exhibited with safety and some degree of certainty in effect.

Alkalometry, then, from the chemist's standpoint, is the elimination of the inert portions of the drug and the isolation and classification of each distinctive active principle, resolving the concrete substance into the abstract, classifying those of greater or lesser physiological activity and antagonistic action, and recombining along scientific lines for practical therapeutic application. It was but a step from the first discovery of the chemist, in his successful derivation of abstract principles from the concrete poppy juice, to give us quinine from calisaya bark, strychnine from nux vomica, atropine from belladonna, digitalin from foxglove, and so on to the end of the list.

The first three, morphine, quinine and strychnine, came into immediate and general use by nearly all classes of physicians.

Of all the alkaloids perhaps none have been more recklessly and inexcusably misapplied than have morphine, cocaine and quinine, especially by the laity for self-medication.

Among the most useful and important discoveries in alkaloidal combinations of the twentieth century is the happy union of hyoscine, morphine and cactin (to which may be added strychnine if indicated, without fear of counteracting its anesthetic effect), one of the evolutions of alkalometry emanating from the fertile brain of that live, hustling, broad-minded, scientific enthusiast, from the breezy city, one of the early pioneers in this country in the manufacture and intelligent application of alkaloidal therapy, Dr. W. C. Abbott. We admire him as well for his sincerity as for his dynamogenic forcefulness. [Thanks, Brother! —Ed.]

Long live the man whose brilliant genius has placed at our command a combination

so potent in its action, so harmless in its effect, that it may be used with intelligent judgment, with perfect safety, as we have personally demonstrated, to relieve the writhing contortions of renal and hepatic colic, almost instantaneously; reduce the luxation of a joint, a simple or compound fracture without remonstrance from the patient, victim of the injury; or so assuage the grinding pains and pangs of childbirth, that the expectant mother may calmly survey the latest fashion-plate or resign herself to the inviting arms of Morpheus, as the process of unconscious labor progresses and she floats away into the happy, optimistic dreamland, seeing in the eye of her dreamy imagination a prospective son and heir standing in the highest role of honor among the greatest surgeons of the world or assuming the duties of the highest office in the gift of the most powerful and progressive nation upon which the sun ever shone, whose loyal citizens are entitled to compete upon equal terms for its grandest achievements, whose glorious ensign is an emblem of hope to the oppressed of every land, honored and beloved by all people of every nation.

The dream is past. The master of ceremonies has completed his work. The embryo of future royal manhood emerges from the environment of its prison walls, and begins to run life upon its own account. The mother is awakened by the sound of a shrill infantile wail, to pay tribute to the achievements of alkalometry—and perhaps—a doctor's fee.

Thiosinamin, the Absorbent of Scar Tissue

A Resume of Reports Up to Date

Compiled by WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois
Dean and Professor of Therapeutics, Bennett Medical College

BY treating oil of mustard with absolute alcohol and ammonia we obtain allyl sulphocarbamide, or thiosinamin. The chemical formula is CS (NH_2). NHC_3H_5. It appears in the form of colorless crystals, is bitter and of a faint garlic odor, slightly soluble in water, freely soluble in alcohol.

Thiosinamin is an active stimulant of glandular and lymphatic activity. Koliker found that the phagocytes were abounding in scar tissue. However, some hours after a hypodermic injection of thiosinamin a marked fall occurs in the number of leukocytes present; Hebra says, from 14,000 to as low as 4000. This condition is rapidly followed by hyperleukocytosis, which endures as long as the remedy is being administered. Local reactions occur about exudates and transudates, although without general disturbance.

Hebra introduced thiosinamin for use when it is desired to excite local reaction in an inflamed, cicatricial or poorly nourished area, when glandular stimulation is desired, or hyperleukocytosis is indicated. He reported favorably on its use in treating lupus and old cicatrices; also in chronic non-syphilitic glandular enlargements. An ectropion caused by lupus was cured.

Haus reported favorably on this remedy in urethral strictures, as did Tousey, who found that when aided by the occasional passage of a sound it cured cases usually amenable only to cutting operations.

Lutzko tried it on uterine tumors, old perimetrites and salpingites, finding the softening action undoubted; the tumors often growing smaller. Unna added his testimony as to its efficacy in cicatricial contractions, local tuberculosis and corneal opacities of long standing, which cleared up.

Tousey declared thiosinamin was possessed of positive curative properties in resolving benign and malignant tumors, cicatrical tissues, keloid and corneal opacities. He also urged it for deafness due to tympanic embarrassment by fibrous tissue.

Hubbard advocated this remedy in catarrhal deafness, disseminated choroiditis, diffuse corneal opacity and senile cataract. Unna applied thiosinamin locally for keloid, leprosy and to remove smallpox scars. Neisser obtained good results in scleroderma, as did Juliusberg in scars from lupus and burns. Upon tried it in six cases of chronic joint disease; two were greatly improved, two doubtful, two unaffected. Armstrong reported a cure of epithelioma recurring a scar, from galvanofaradism, and the local use of thiosinamin and guaiacol. Teleky got good results in two old cases of esophageal stricture.

Suker used thiosinamin internally for corneal opacities, cicatricial contractions of the eyelids after trachoma, exudative choroiditis, symblepharon, capsular opacities (postoperative), cicatricial ectropion and plastic iritis. Sherman found it valuable in chronic avascular cicatricial keratitis. Randolph got good results in obstinate tinnitus. Somers found it useful in sclerotic deafness, the benefit being manifest within six weeks if at all. Kaufmann obtained most satisfactory results in a case of chronic gastric ulcer with tumorous proliferation. Renon advised its use in arteriosclerosis.

Thiosinamin Used Successfully in Catarrhal Deafness

Lermoyez employed it in purely adhesive cicatricial or catarrhal deafness. He applied thiosinamin by instillations through the eustachian tube or by irrigation of the canal; the only other treatment was systematic massage of the tympanum. Eight cases were benefited by this method. Every evening the patient's ear received a bath of a hot solution of thiosinamin-antipyrin. Twice a week he practised pneumatic massage of the tympanum. In general, by the fifteenth day there was a decided improvement in hearing, most marked in cases of cicatricial adhesions following cured otorrheas or where a large perforation permitted the penetration of the solution into the tympanum. In refractory cases tubal injections were practised. The solution was neither painful nor irritating when injected. It consisted of 15 parts of thiosinamin, 7.5 parts of antipyrin and 100 parts of distilled water. The solution was sterilized, and only two or three drops were used at a time.

Successfully Employed in Ankylosis of the Knee

A very happy effect of this remedy is reported in *La Province Médicale* as follows: "The case was that of a woman forty-seven years old who, after being attacked with very severe blennorrhagic rheumatism, was left with an absolutely complete ankylosis of the knee and a stiffness of the shoulder-joint and limited motion in the elbow, wrists and fingers. The articular motions of the hips and ankles were also limited and painful.

After the failure of medical and surgical measures, the treatment with thiosinamin solution (in the proportion of 1 in 25, and prepared cold) was instituted. From September 10 to October 3 the patient received twenty-five hypodermic injections, each of 5 Cc., in the abdominal skin, which makes 20 centigrams of the remedy in solution. Immediately after the prick of the first injection the patient felt a taste of sulphur in the mouth, which was disagreeable and lasted for many hours, then gradually disappeared. An amelioration of the joint trouble was felt on the eleventh day from the beginning of this treatment, and though the movements remained limited yet the patient declared the articulations were more supple and their mobilization occasioned no pain at all. The amelioration increased on the following days. On the twentieth day, however, the patient noticed an important and new fact, namely, a particular difficulty in walking, although the articulations had regained in part their suppleness and the pains were very slight. It seemed to the patient as though the muscles were elongated and did not obey as in the past the incitation of the will. The muscles had lost their tonicity but were not paralyzed.

"In this case the action of thiosinamin shows itself both as a real ameliorator of articular troubles and also as having an unfavorable action on the voluntary muscles and the heart-muscle. The patient in this case was

tainted with chronic rheumatism, genera arteriosclerosis and latent myocarditis. W shall have to exercise care in cases like these when employing thiosinamin in these instances, not to go beyond the point of relaxing the periarticular fibrous tissues lest we impair the voluntary muscular system."

Pollack writes: "The much-promising name of fibrolysin has been given to a substitute for thiosinamin which latter has the disadvantage of being very painful when administered hypodermically after the customary formula. It can, however, be given perfectly painlessly by employing the following formula: Thiosinamin, 1.0 (grs. 15); distilled water, 5.0 (grs. 75); glycerin, 5.0 (grs. 75). Of this solution 1 Gram (grs. 15) may be injected unhestitatingly into a feeble person and the pain will not be greater than from a similar injection of morphine or may be not more than from the prick of a needle. It may be that the single injection from the formula will produce a weaker result than that from the customary formula, but the advantage is that the injections can be made as frequently as five or six times a week without any drawbacks.

A Rectal Stricture Treated with Thiosinamin

"That the same results can be achieved from the weak solutions as from the stronger is evident from the following history: Patient, a woman 36 years of age; in her third pregnancy in the fourth month; cough for many years; hemoptysis two years ago; first parturition, four years ago, was spontaneous, and the child died soon of convulsions; second pregnancy terminated with miscarriage in the fourth month; patient has complained for a long time of pains in the chest, cough and a lack of appetite. Since three years there has been pain in the abdomen, and obstipation. The patient has greatly emaciated recently. Examination gave the following: Infiltration in both apices of the lungs. Slight feverishness. High-grade stricture of the rectum; five centimeters (2 inches) beyond the entrance of the rectum it seemed entirely occluded. On careful search a small opening was found near the posterior wall in which not more than the point of the lfinger could be inserted. The mucosa itselr ewas perfectly smooth and soft; no nodules of ulcers appeared.

"This stricture in the rectum seemed to be caused by a cicatrix, the edge of which was sharp and smooth. With some trouble it was possible to introduce a medium-soft male catheter alongside of the finger as a guide. A quantity of stinking fluid feces was discharged and some solid crumbs, and much more of these came away by flushing beyond the stricture. This procedure was frequently repeated for fourteen days and gave momentary relief, but there was no hope of dilating permanently in this way, for the stricture became constantly stronger and tighter and the introduction of the instrument more difficult—the patient complaining more and more and running down rapidly. An operation was indicated and a surgeon in consultation urged dividing the stricture.

"Then Dr. Pollak decided to make a trial with thiosinamin, beginning with injecting the above-named solution into the gluteal muscles. The first injection was somewhat painful, but for a moment only, while all subsequent ones were perfectly painless and without any reactions, so that the further injections could quite readily be made in the same place.

"The result far exceeded all expectations. After the fifth injection the catheter could be introduced easily and painlessly without the finger as a guide. After the eighth injection a small tube could be used instead of the catheter and the introduction of it with the finger as a guide was accomplished very easily. For the first time, then, after a long time spontaneous fecal evacuations took place. It was found that two more strictures, less pronounced, and some ulcerations existed above the first stricture. The stricture, it must be mentioned, was perfectly smooth. The injections continued to be painless, and the patient could not express wonderment enough at the results, and laughed at her previous anxiety. Four weeks after the first injection of thiosinamin normal conditions of the rectum presented themselves and the injections were

discontinued. The patient evacuated her stools normally and without pain, and that permanently. On the course of the tuberculosis the injections had no influence whatever. The patient bore a living child and unfortunately died fourteen days later of acute miliary tuberculosis.

"Dr. Pollak treated other patients with injections of the same solution for rheumatism and neuritis and always without pain or reactions. In all these the results were good, but he does not give their histories, thinking the one he details perfectly sufficient, and this one deserves well enough to be tested by others in similar cases."

Fibrolysin: Its Advantages

Fibrolysin is a double compound of thiosinamin and sodium salicylate. It has the advantage of quick absorption and freedom from pain and irritation when injected subcutaneously. Herschell speaks quite favorably of it, comparing the effects with Bier's passive hyperemia. In moderate doses the action is elective to pathologic connective tissue, though Lange showed that in toxic doses it induced anasarca.

A writer in CLINICAL MEDICINE says that his uses of thiosinamin by the mouth were invariably disappointing. He finds it only valuable when used hypodermically. He recommends a half grain twice a week, gradually increased to three times a week if necessary. Profuse diuresis always follows its use. The appetite improves and the weight increases. Skin eruptions disappear, cardiac lesions improve, a hemic murmur disappearing after three months' treatment. In another case a mitral lesion improved markedly. He found thiosinamin useful in keloid and other cicatricial growths, corneal opacities, lupus vulgaris and lupus erythematosus, glandular enlargements (nonspecific and nontubercular), psoriasis, and urethral stricture. Deformities from burns soften to an astonishing degree.

The Site of Injection

Mendel declared the site of injection immaterial. Plesch, who obtained success in treating Dupuytren's contraction, injected as closely as possible to the contracted tissue. Urbantschitsch favors intravenous injections as giving speedier results. He chose the larger veins to avoid thrombosis. A peculiar taste and odor is almost immediately perceived after the injection, or the technic is at fault. These occur later after subcutaneous and intramuscluar injections. Most operators prefer injections into the gluteal region. Sometimes there is burning after the injection, and this may last for hours. The skin may become yellowish or inflamed or urticaria appear. Painless nodules sometimes form, subsiding slowly. Severe headache and debility may follow for a day. Debility of the limbs, insomnia, nausea, premature menstrual flow, toothache, also fever up to 104°F., have been reported as rare sequels. Waugh noted marked symptoms of heart failure after injections of 5 grains, though 15 grains has been advised as a single dose in Germany.

Contraindications to Thiosinamin

Merck mentions as contraindications the existence of valuable supporting cicatrices, active inflammation (which is aggravated by this drug), and latent tuberculosis; arteriosclerosis in the aged, when it may cause congestion; also otorrhea, present or recently stopped.

Weisselberg found fibrolysin superior to thiosinamin in esophageal stricture. In all thirty-nine injections were given. Combe, after a year's study, reported good results in pyloric strictures and in adhesions by bands, laryngeal stenosis, cardiac stenosis, cirrhosis and ascites, and in cerebral sclerosis. Planta cured an extensive scar from a burn with twenty-five injections on alternate days. The patient was a child of five years. Waelsch cured a plastic induration of the penis; Woltke, one of chronic synovitis; Boseek, one of myositis ossificans. Grunert found thiosinamin of use in eye-cases, lupoid scars, and postneuritic atrophy. The improvement was not maintained if the remedy was discontinued too soon. Bruno also made a favorable report of this agent in eye-cases. Brinitzer used it successfully in scleroderma; Salfeld in chronic polyarthrites and arthritis

deformans. Kratzer employed it with benefit on a horse with fibrous tendinitis.

Lang succeeded in a case of urethral stricture of 53 years' standing. Castellani reported excellent results in the treatment of elephantiasis by the hypodermic injection of fibrolysin, combined with the use of rubber bandages in cases where the skin was verrucose. If the skin was smooth the rubber bandage was not advocated. In one case the patient, who had suffered for twelve years, received 62 injections, at the end of which the circumference of the ankle had been reduced from 23 1-2 inches to 9 inches, the calf from 25 1-2 inches to 12 inches.

How to Use Thiosinamin

Renan found a solution of thiosinamin, 1 part in 25 parts of sterilized distilled water or normal salt solution, practically painless when injected under the skin of the abdomen. The menstruum must be cold and prepared in a sterilized vessel. The solution is slightly opalescent. Each injection contains 20 centigrams of thiosinamin. Merck suggests a solution of 10-percent strength in 4 parts of freshly boiled and filtered distilled water, and 1 part of glycerin.

By the mouth the usual dose is 1-2 to 1 grain, three times daily, in tablet or capsules. Injections are given two or three times a week. Unna employs soaps, plasters and ointments of 5 to 20 percent. When administered by the mouth the result is not satisfactory.

Not much effect should be expected within three months of its steady administration. The writer failed to secure satisfactory results in one case of chronic synovitis of the knee.

The Conclusions of Tyrode

Tyrode's very elaborate experimental study of this drug led him to the following conclusions:

"Thiosinamin undoubtedly produces a profound effect upon the general metabolism when given in sufficient doses. Although the decrease in appetite and later the refusal of food are important factors in the weight, yet the latter is decreased before there is much falling off in the appetite. Coincidentally the urea in the urine increases markedly as long as the kidneys are able to secrete. This coincident increase of urea and loss of weight would suggest an augmented katabolism of proteids. Likewise the very general fatty degeneration found after such a short time as six days suggests that the destructive action on the protoplasm of cells is very rapid. This fact, however, does not seem to be specific toward connective tissue, since the changes were observed chiefly in epithelial cells. If thiosinamin has the power of dissolving scar-tissue, we should rather expect some action on normal connective tissue, which has not been the case. However, a series of experiments, which will form the subject of another publication, is now being made with a view of studying the effects upon experimental scars.

"In view of the marked poisonous action upon animals and also of the reported cases of poisoning in man the writer would recommend that in practice thiosinamin be used only with great caution and in very small doses."

Can Heart Changes Be Cured?

A writer in *Die Therapie der Gegenwart* suggests that by the use of thiosinamin it may be possible to soften the cicatricial formations in the heart resulting from rheumatism. Three cases were treated by hypodermic injection. A good solution is: thiosinamin, 10 parts; glycerin, 20 parts; water, 70 parts. Warm slightly before using. Of this a hypodermic syringeful may be injected every third day. The results are said to have been quite encouraging, the patient being quickly relieved of insomnia and other troublesome symptoms.

Remete reports the result of his use of thiosinamin in 20 cases of urethral stricture. He used a 15-percent alcoholic solution, injecting 15 minims into the back twice a week. The injection was quite painful, cocaine being often required to deaden the pain. The results were favorable. It did not dilate the strictures, but the strictures became softer so that dilation was much easier.

Lengemann gave this drug for Dupuytren's contraction, which gives a clawlike appearance to the hands. He says the cures have endured for a year. Altogether 45 injections were made within eight weeks, by which time normal flexibility had been restored. He injects the solution where its effects are desired, preceding with cocaine, and following with massage, passive movements, and applying dressings saturated with thiosinamin solution.

McCullagh says that this drug exerts a marked beneficial action on ear disease with the formation of new connective tissue. The benefit is due to increased pliability of this tissue, allowing the usual forms of treatment to accomplish their object better. The administration should always be accompanied by mechanical measures. As good results may be obtained by administration by the mouth as hypodermically. Better and more prompt results may be obtained in recent cases. It exerts a beneficial action on aural vertigo. Care should be used in looking for contraindications. Better results may be obtained with it in the relief of tinnitus aurium than with any drug used heretofore.

Summarizing, then, the results of observations as reported in medical literature, the effects of this agent may be stated to be:

Thiosinamin softens scar-tissue; dissolves pathological fibrous tissues; softens strictures and so permits the easy passage of sounds or foods; promotes absorption of cicatricial tissue. It has a wide field of usefulness in scars; fibrous adhesions; fibrous tumors; strictures; tympanic adhesions; corneal opacities; parametritis; locomotor ataxia; pyloric obstruction; Dupuytren's contraction; stenoses; ankyloses; lupus; glandular tumors; gastric adhesions; keratitis; keloid; sclerosis; elephantiasis; choroiditis; deafness due to sclerotic processes in the middle ear.

Treatment of Acute Lobar Pneumonia

How the Disease May Be Aborted or Cured

By JOHN M. SHALLER, M. D., Denver, Colorado

NOW that the winter with its storms and snow and sleet holds the land in its icy grip, and pneumonia is one of the dreaded diseases prevailing, it is natural for physicians to ask themselves whether they can, in any way, prevent the development of pneumonia, or otherwise at least lower its death-rate among those already attacked. There is, I can confidently assert, a plan that would greatly lessen the mortality-rate, but the education and cooperation of the people is a necessary part. The people must learn to recognize this disease in its incipiency. If possible, they should even anticipate the stage of inflammation, and without delay send for some physician who believes that acute inflammatory diseases, at a certain period, may be aborted.

The facts necessary for the laity to understand are not difficult to grasp. The rigor is the initial symptom and is present in about 80 percent of patients attacked with acute lobar pneumonia. In childhood the chill is the exception. The people should be taught that a chill, except in malarial districts, as a rule indicates either blood-poisoning or pneumonia. Either of these conditions is certainly serious enough for prompt medical attention, the chief reason for this promptness being that if taken at the beginning pneumonia may be aborted by appropriate treatment, and this means that the duration of the attack may be shortened, This leads directly to a more important matter, namely, that of preventing a fatal termination. Necessarily, if an inflammatory disease is aborted in its congestive period, it cannot advance to the exudative stage with its greater dangers.

However, in order that the people may take advantage of attenpts to abort pneu-

monia, the physician himself should believe that congestion, which always precedes inflammation, may be checked; that the excessive quantity of blood in the threatened area may be diverted to other parts and away from the focus of threatened disease. Not only should he believe this, but he should be anxious to make the effort. The earlier in the congestive period that such treatment is begun, the more satisfactory will be the results. If we are influenced by the old teaching, that inflammatory diseases must run their course, and if we will not believe or act otherwise, it will be unfortunate for our patients.

What should be done, however, is to make the trial, provided treatment can be begun before solidification has set in. The probabilities are that the surprise that follows, because of the rapid improvement, will be so gratifying that no more urging will be necessary. One trial will usually prove convincing.

At the beginning of congestions (which are identical with socalled "colds") any remedy that can flush the capillaries of the skin with blood, such as hot baths, or that can produce copious sweating or copious watery stools, will often "break up" a congestion or "cold." Dover's powder, tartar emetic, veratrum viride, coaltar derivatives, and aconite, have all been successfully used by physicians for this purpose. Aconitine is the remedy preferred by the writer, as one that is extremely useful in checking acute inflammations, provided it is given not much later than twenty-four hours after the first symptoms show themselves.

Flush the Capillaries with Aconitine

As a rule, debility or cardiac depression is not a part of the congestive period. Aconitine may therefore be given without hesitation or fear of producing anything but good results. The probabilities are that the hesitancy to use aconitine has been handed down by former teachers who were not familiar with its use, and they very naturally condemned it. The fear is that it may weaken the heart, but a few trials in active congestion will show that aconitine slows the heart action without weakening its stroke. The number of heart-beats is gradually reduced, and the beat of the pulse against the finger shows strength.

There should be no more hesitancy in using aconitine than is using any other medicine which belongs to the poison class. The physician's knowledge and skill should give him that confidence which enables him to use any potent drug without fear, even with infants. He should feel, and even know, that certain favorable results will follow. If not, then he certainly should not use any drug about which he has these doubts.

When a physician says he will not give aconitine "because it is a poison that can do harm," the least that may be said is, he certainly knows nothing of the action of this one medicine, and probably lacks confidence in his ability to use it. Aconitine can and does abort acute lobar pneumonia, as well as many other acute inflammatory diseases, if properly prescribed during the congestive period.

Congestion of Respiratory Circulation the Forerunner

All are fully aware that pneumonia begins with congestion of the capillaries in the walls of the air-cells, being ushered in by a chill, which should serve as a warning. This chill indicates congestion. It is the forerunner of inflammation. It is really a clue which should be followed up as soon as observed. As a rule there is no difficulty in breaking up or checking a congestion if correct treatment is applied early enough.

A congestion can be aborted because it is not an established condition. It is a stage of transition. A chill simply means that a congestion is forming, which, if left unchecked, must necessarily result in inflammation. The object of treatment is to abort this congestion and prevent the exudation of inflammatory lymph. If several days have passed since the initial chill, there should be no effort made to abort.

In the writer's opinion the best medicine with which to check or dissipate acute congestion is aconitine. This remedy should be given as soon after the chill as possible,

and given in frequently repeated doses, at short intervals, until the desired effect is produced.

How to Give the Aconitine

If the temperature should be as high as 105° or 106° F. in an adult, the case is serious at the very start. If the pulse is full, strong and bounding, the patient's face flushed, and the skin hot and dry, one granule of aconitine (I use Abbott's), gr. 1-134 should be given, in solution, every fifteen or twenty minutes until the skin becomes moist, the breath easier or the pulse reduced. At this time, the temperature begins to fall, and so does the pulse-rate. The probabilities are that they will continue to fall, all other conditions improving likewise. It often happens that within twenty-four hours after administering aconitine the inflammation is checked, that is, the temperature is normal and remains so.

There should be no hesitancy about giving aconitine thus frequently and in such small doses. Instructions should always be given that as soon as improvement manifests itself, the remedy should gradually be withdrawn, that is, it should be given every half hour or every hour. The improvements that show themselves are a general feeling of comfort, disappearance of restlessness, of shortness of breath, of hacking cough and pain. The tongue and the skin become moist and the secretions generally are restored to the normal.

In the treatment of children the same rule holds good: the higher the fever, the more active the symptoms, the more robust the patient, the harder should aconitine be pushed, until improvement becomes manifest or physiological results are produced.

In children the matter of dose requires some attention. The rule is: For each year of the patient's age dissolve one granule of the aconitine in 24 teaspoonfuls of water, together with one extra granule. For instance: If the child is 2 years old, 3 granules are dissolved in 24 teaspoonfuls of water, and one teaspoonful of this solution is given every fifteen minutes, every half hour, or every hour, according to the severity of the attack. For an infant under one year, 1 granule in 24 teaspoonfuls of water is the proper proportion.

There should be no more hesitancy in giving children aconitine in doses such as above indicated than in giving it to adults, the object always being to push the remedy until the improvement shows in some way, or until physiological effects are produced, then gradually reducing the dose.

Of course aconitine should never be given when the pulse is feeble, the extremities are cold, the skin is cold and moist, or when the lungs are full of sibilant râles.

Important Considerations

It is a very good plan always to begin treatment with a saline laxative.

An important point for the physician to remember is to have implicit faith and confidence in his ability to cure, and in the efficiency of medicine to produce the desired effects. He should believe this firmly, and the patient should also be made to believe that a cure will certainly be effected. The physician may think that he cannot positively know this, but he must take into consideration that results are not entirely produced by the medicine alone. Much depends upon the physician himself, the manner in which he impresses upon his patient's mind the great hope and the chances in his favor for complete recovery.

The physician who will take charge of a serious case and depend entirely upon the medicines to effect a cure, without taking into consideration the immense and wonderful power of his own mind in controlling conditions, is neglecting a potent means at his command for good.

In pneumonia, as well as in all other conditions, the mind of the patient must receive positive suggestion of relief and cure. If the patient can absorb this hope from the doctor and have full confidence in him and in all that he is doing, the patient is already half cured. One important point is, the attendant physician should make positive efforts, without show, to gain the patient's confidence. It is absolutely necessary for

the physician to have hope himself and to instil that hope into his patients.

Do Not Tell a Patient His Case Is Hopeless

Under no circumstances (except in rarest cases) should a physician ever tell a pneumonic patient that his case is hopeless. It is better even not to tell members of the family, because they very often carry this to the patient, and put it in such a way that it must act detrimentally. Physicians must understand that the mental state of the friends of the patient, greatly influences that patient. We are beginning to realize that it is not always necessary for a thought to be expressed in words in order to be effective. A thought without being expressed, even by act, may have power to do damage.

We are employed because the people have confidence in us, and our judgment should stand for a great deal. If we think that the patient must not be told of the seriousness of his condition, the family must abide by that decision. By telling a sick person that he is going to die, we certainly are taking away from him the most potent means he can use for himself. The will has an immense power over the body both in health and disease. We should not weaken or destroy this power and take away the main prop from the patient. We should not hesitate a moment to make any statement to a patient that might help him to recover.

Our business is to cure. The means employed to cure are not of much moment when we take into consideration that we may save lives thereby. So let us encourage them all we can. Give them all possible hope with every dose of medicine we give, and, by putting suggestions strong enough, if we can make them feel their case is not hopeless, we are bound to have better results than we possibly can without them.

One chief thing is to have faith in ourselves and in the medicine or means we use. Medicines are active and useful and can and will cure when rightly employed. By "rightly employed" is meant, particularly, the strong mental impressions that are made by the physician himself as to what medicines will do. This means confidence in the physician. He must know that patients have this confidence. This is one of his best assets if he will employ it for the purpose of producing cures. Nowhere else, so much as in pneumonia, are the beneficial effects of medicine seen, when backed by hope.

We have considered but one feature of acute lobar pneumonia, and that is, its abortion during its congestive period, but this is undoubtedly the most important matter connected with the treatment of this or any other acute inflammatory disease.

One word in regard to socalled stimulation. Alcoholics do flush the capillaries of the skin by paralyzing the vasomotor nerves and are therefore of more value when the skin is cold and clammy than when it is hot and dry. The socalled cerebral excitement produced by large doses of alcohol is not the result of arterial stimulation, but is delirium, similar to that which follows the administration of other narcotic poisons. If it is understood that alcoholics are narcotics, similar to opium in effects, it is intelligently administered. But the probabilities are that its narcotic effect is not always considered. Alcohol will soon be generally recognized as having narcotic properties similar to opium, and that each can be used interchangeably as stimulant or narcotic in place of the other.

HAPPINESS, at least, is not solitary; it has joys to communicate; it loves others, for it depends on them for its existence; it sanctions and encourages all delights that are not unkind in themselves. The very name and appearance of a happy man breathe of good nature, and help the rest of us to live.—Robert Louis Stevenson.

Uncomplicated Bronchitis, and How to Treat It

By J. W. YANKEY, M. D., Sylvia, Kansas

BRONCHITIS in an inflammation confined almost entirely to the mucous membrane of the bronchial tubes. In its chronic form it results in cough and a thick mucopurulent expectoration. There may be fever and the general health may or may not be impaired.

Bronchitis occurs practically everywhere and apparently its frequency corresponds with the degree of humidity in the atmosphere. Sudden changes of temperature and cold winds are additional causes. On account of greater exposure males are more frequently affected than females. Simple bronchitis is frequently not of bacterial origin, depending simply upon a hyperemia of the bronchial mucosa, following upon a contraction of the superficial blood-vessels of the skin.

Bronchitis may occur by extension of laryngeal inflammation. It is a frequent accompaniment of infectious diseases and may be due to the inhalation of gases, vapors or dust.

The effect of bronchitis upon the health of the patient depends largely upon his general condition. The robust may not be perceptibly affected, while the debilitated, and especially persons at the extremes of life, may be overcome.

The Symptoms of Bronchitis

As to the subjective symptoms of uncomplicated bronchitis, a chill may or may not occur. According to Bartholow, in severe cases there occurs a succession of chills or chilly sensations felt several times during the day, which have, however, no influence on the temperature. There is generally a sensation of soreness or rawness under the sternum. A short, dry cough, aggravated by change of position, occurs early. The temperature may range from normal to 103° F.

The expectoration, consisting at first of white and frothy viscid mucus, eventually becomes mucopurulent, and continues after the fever, if present, has subsided. The pulse usually keeps pace with the temperature.

Among the objective symptoms we have a respiratory murmur-rather rough and harsh, also sibilant and sonorous râles. Percussion, palpation, inspection, give only negative information.

The prognosis of acute uncomplicated bronchitis is good, except at the extremes of life. Some very young and some very old patients succumb to the disease, but they are very few.

Chronic bronchitis is a disease of long duration, persisting sometimes thirty and forty years. It rarely kills but often paves the way for tuberculosis which winds up the scene.

Treatment of Bronchitis

In the treatment of bronchitis, much that is laid down in textbooks, perhaps even more that is said in the journals, and nearly all that is found in the literature recommending the various proprietary remedies could well be forgotten so far as the reputation of the physician and the welfare of the patient are concerned.

Although I am not a nihilist on the subject of drugs, I do believe that the most that can be said for many of them is that they probably do no harm.

One of our most noted therapeutists would have us use, in the early stages, syrup of ipecac and solution of potassium citrate, 1-2 dram of the former and ½ drams of the latter, given every three or four hours. For the cough, when annoying, 2 or 3 grains of Dover's powder every two to four hours as may be needed. For counterirritation, a mustard draft over the front and back of the

chest, left on only a short time, can be used effectively. More agreeable, and perhaps even more effective for those who have no idiosyncrasy against it, is the preparation known as capsolin. The various mud preparations may be used—sometimes effectively. If the patient is having too much company, use instead of a counterirritant oil of amber in olive oil, in the proportion of 1 to 7, or stronger, according to age; only the faithful will remain—the odor will drive most of them away.

Bronchitis tents are recommended; they are probably overdone by some and by others not even tried. Medicated steam doubtless is of benefit when used with proper discretion. Menthol compound, tincture of benzoin, oil of eucalyptus and oil of pine are some of the drugs used in medicating steam.

Remedies for Special Indications

After secretion is established, ammonium chloride, in doses of 5 to 10 grains, is said by some authorities to be a most effective stimulant but usually needs something to take care of it. For this purpose fluid extract of licorice, spirit of lemon and water are useful. For cough at this stage, codeine 1-4 grain or paregoric (which however I should not use at this or any other stage of the game) is recommended. When the ammonium chloride is too nauseating or is not effective, in many cases oil of santal, in 3- to 10-minim doses (in capsule) in my hands has been effective and has been well tolerated. Oil of eucalyptus may be similarly used with good effect. Elixir of terpin hydrate with heroin (1-12 grain) may be used as a stimulant cough remedy.

Treating Acute Bronchitis

The treatment of acute bronchitis resolves itself into three parts: restoration of the equilibrium of the circulation, elimination, and support of the patient. For the first, atropine or hyoscyamine, and counterirritants if necessary. For the second, calomel and saline laxatives, also a resolvent, such as calx iodata, and emetine if needed. For the third, triple arsenates with nuclein or some other good tonic when needed. The cough may need temporary treatment, but control the disease and the cough is already controlled.

The National Standard Dispensatory recommends only 88 different drugs as being useful in the treatment of bronchitis, from which an almost endless number of combinations can be made. Who might not be lost in such a boiling sea of drugs and their combinations? Who might not overdo? Who might not save? From this multiplicity we are expected to select. Who would think of adding more? Who would not eliminate, say, at least three-fourths of the great number? That is just what is being done by the late writers on materia medica. A very large percentage of the drugs once employed and believed to be as potent as were the six coveted hairs from the dog's tail that the negro woman wanted to cure her boy of the "phobia" are now considered useless and consequently are left out altogether. Some of them are still sold on account of the habit some have of using them because others have used them.

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[We have but little to add to the excellent treatment outlined by Dr. Yankey for an ordinary attack of bronchitis; but we would suggest that, especially in cases with an acute onset, aconitine with or without strychnine arsenate, or the dosimetric trinity given together with the calomel and a saline laxative, would often succeed in cutting short the attack.

In making the diagnosis we want to be very sure that we actually have a simple and uncomplicated bronchitis to treat. It is of particular importance to exclude tuberculosis, which in its destructive form (phthisis) often at first passes under the guise of bronchitis.

The specific diagnostic methods which have come into use during the last few years have now been sufficiently well established to be employed with confidence by the general practician; still, one unaccustomed to the biological characteristics of tuberculosis may do well to consult a specialist, at least until he has acquired sufficient information and experience.—ED.]

Chronic Rhinitis

Its Nature, its Causes and How Relieved

By W. E. McKinley, M. D., St. Joseph, Missouri
Assistant Physician, State Hospital for the Insane

CHRONIC rhinitis is defined by McKenzie as a "chronic inflammation of the lining membrane of the nasal fossæ. characterized by swelling of the mucous membrane, increase in the natural secretions, obstruction to the nasal passages, nasal voice, impairment or loss of smell, and hypertrophy of the turbinated bodies."

The Pathology of Chronic Rhinitis

In all cases of chronic inflammation of the mucous, or lymph, tissues, the recuperative power of the part diminishes in proportion to the severity and number of recurrent attacks of inflammation. The disease may occur without any apparent primary cause, having all the characteristic symptoms of chronic catarrh from its incipiency. A strumous diathesis is frequently found in the most obstinate cases; but sometimes we find this disease very intractable, even when there is no evidence of constitutional taint. It is common at all periods of life, but is most prevalent in childhood.

There are many predisposing and exciting causes, such as improper and inadequate clothing, adenoids, congenital or acquired deformity of the nasal passages, chewing and smoking tobacco (the atmosphere soon acquires an irritating character when contaminated with tobacco smoke). A damp habitation is a frequent cause of chronic catarrh. Stimulants also are exciting causes and are injurious in proportion to the amount of alcohol they contain. Atmosphere loaded with irritating dust, also the inhalation of irritating vapors, as of phosphorus, arsenic, etc., frequently produce chronic catarrh, followed by many of its accompanying evils.

Formerly this affection was considered hereditary, from the fact that it is most common in childhood. This theory has long since been discarded excepting by a few who still cling to their cherished idea of former days. I do not believe that it is ever inherited. The child may inherit a weak mucous membrane which may predispose it to diseases of that membrane. It has been said by some writers that the lighter the skin, the more likely the disease and the more difficult to treat successfully.

The Symptoms of the Disease

An increased flow of mucus is the most common symptom of catarrh. The symptoms come on insidiously and the patient may not become aware of having catarrh until he is seized with frequent paroxysms of sneezing and the nasal obstruction is well marked. The obstruction to nasal respiration and the extra secretion may be gradually on the increase, altering the character and quality of the voice. The mucus dripping down into the nasopharynx creates a desire to clear the throat and nasal passages, provoking hawking and sniffing, which grows more pronounced from day to day, especially during cold, stormy weather. The difficulty experienced in breathing arising from stenosis of the nasal passages soon becomes permanent, and the patient is obliged to breathe through the mouth, which in itself produces dryness of the throat, and causes the secretion to cling more tenaciously to the mucous membrane and to be dislodged with difficulty. This disease usually extends to the nasopharynx and may invade the eustachian tubes, giving rise to catarrh of the middle ear, serious deafness being the result. Obstruction to the lacrimal canal have been noticed in not a few cases of nasal catarrh of rather severe type.

Rumbold says: "During a course of eighteen years' practice he had had many patients, amounting to several hundred, whose mental conditions have been more or less affected by this inflammation extending from the nasal passages to the membranes

of the brain. Uncontrollable melancholy and inability to think consecutively are some of the distressing symptoms exhibited by his patients. Others forget even their own names, while one unfortunate gentleman (whose nose was no doubt in an exceptionally morbid state) experienced the sensation, while walking, that he was sinking into the pavement up to his knees." (McKenzie.)

Nasal Stenosis in Infants

Nasal stenosis, due to hypertrophy of the turbinated bodies (which is such a common symptom of catarrh), may prove of serious consequence in infants, as the obstructed nasal respiration renders the act of nursing almost impossible. The child's continuous efforts to get more air into the lungs and to overcome the nasal obstruction is an important factor in producing round shoulders and flattened chest, or pigeon-breast.

Mouth-breathing (which may be observed in nearly all these cases) is injurious to the lungs, as the supply of imperfectly prepared air engenders passive congestion of the mucous membrane lining the air-tubes (Pynchon), and interferes with proper oxygenation of the blood, leaving the system open to invasion of various morbific germs. The system may also be greatly depressed by autointoxication induced by overproduction of carbon dioxide, due to nasal stenosis.

As this disease approaches the more chronic stage, the mucous membrane becomes darker, and the blood-vessels more tortuous, the hypertrophied turbinates take on hyperplasia, while at the same time the secretions are perceptibly increased and found covering the inferior turbinated processes, nasopharyngeal cavity and upper portion of the fauces.

The secretions at this stage vary in color and consistency from a greenish yellow to white. The increased heat in the parts causes an evaporation of the watery constituents of the secretion which, consequently, forms into crusts, this when decomposing giving the peculiar offensive breath so frequently observed in those suffering from chronic catarrh.

In old chronic cases of catarrh it will be observed that the mucous membrane is much darker than in the acute stage, while the membrane in tobacco chewers will be found purple in color, and the whole membrane congested and covered with secretion. In those patients of between thirty and forty years of age thus affected we find the completion of the hypertrophic stage and the commencement of the atrophic.

Symptoms of the Atrophic Stage

In the young there is inspissation of the secretion and impeded respiration, while in the old very little if any crusting and seldom any impediment to respiration occurs, owing to partial atrophy. The more chronic the inflammation and the greater the anesthesia the more tenaciously will the secretion adhere to the membrane.

Deafness or some aural complication frequently follow as a result of this disease, especially where there is much nasal obstruction. Thickened secretions may block up the orifice of the eustachian tubes, preventing a sufficient quantity of air from entering the middle ear, and the intratympanic air is gradually absorbed by the blood which circulates through the vessels in the walls of the cavity.

In this manner a passive congestion of the mucous membrane of the middle ear is produced, a condition which constitutes practically the first stage of an inflammation, and if long continued, results in permanent tissue changes. Any condition which for a considerable period affects the circulation within the middle ear will also cause a disturbance of the labyrinthine circulation, from an alteration in the tension of the fluid contained. (Dennis.)

In the atrophic stage we may expect to find all the symptoms indicative of that condition: great dryness of the mucous membranes, giving them the appearance as if they had a coat of varnish, with the complete atrophy of the tonsils and the turbinated bodies. The blood-vessels are larger and more tortuous than in victims of younger age. The mental symptoms are more important. In the chronic stage of those past

forty, headache, face-ache, brow-ache often are common symptoms, while asthma and bronchitis are frequent sequelæ.

The Prognosis of Chronic Rhinitis

The prognosis is favorable when proper treatment is instituted. A few years ago the majority of the profession considered this disease unfavorable or doubtful, but much of this opinion was based upon poor instrumentation and faulty methods of treatment in vogue at that time. If left to itself, this disease either remains about the same or gives rise to hypertrophic changes of the mucous membrane with all of its accompanying evil results, such as polypi, middle-ear diseases, enlarged tonsils, asthma, bronchitis, chronic pharyngitis or laryngitis. Recurrent attacks or acute exacerbations of this disease are very common, especially in those past forty years of age. In those of twenty-five years of age or younger a favorable prognosis may be given in almost every case, and a return of function of the mucous membrane may be anticipated.

In those past that age the prognosis is not favorable, yet with the proper treatment the mucous membrane may be so nearly restored to its normal condition that a few treatments every spring and fall will practically render the patient free from any annoyance from this disease.

As treatment progresses favorably, we may expect a change in the secretions as to color, cordition, consistency and quantity; also a gradual reduction in the size of the blood-vessels, and a change in the color of the mucous membrane from a dark and dusky red color to bright-pinkish hue.

How the Disease May Be Treated

Treatment should consist both of local and constitutional measures. The patient should always be diligent in following out the instructions of his physician with regard to hygiene and other sanitary measures. All local treatment should be applied warm; even the old familiar Dobell's solution should be warmed before thrown upon the sensitive schneiderian membrane. Aqueous solutions are so quickly evaporated that they give but little benefit, therefore the principal medicaments should be applied in an oily state. Antiseptics, such as oil of eucalyptus, cinnamon, terebene or gaultheria, will be found useful in many cases. If there is fetor arising from decomposition of the secretions, resorcin, guaiacol or thymol are more valuable agents to use.

In the atrophic stages, where dryness of the mucous membrane is present, the more stimulating remedies, such as eucalyptol, combined with liquid petrolatum, are indicated.

During acute exacerbations sedative sprays should be used until congestion is reduced to a minimum, then the hypertrophied tissue should be removed, so as to permit a sufficient volume of air to pass freely through the nasal cavity. The redundant tissue may be removed by excision or by cautery. The method I most prefer is by galvanocautery, although I sometimes use glacial acetic or chromic acid when my battery is not in working order. It is best, however, to leave as little cicatricial tissue as possible as it cannot take the place of healthy mucous membrane; but it is better to leave scar-tissue than to leave a large obstructing turbinate which interferes with nasal respiration and proper drainage. It should also be remembered that too much burning is as bad as not enough, and the physician should be guarded that he does not overdo a "good thing."

For office use and home treatment of this disease I order as a cleaning agent the following, which is a concentrated stock solution. I have my druggist make it for me from my formula, which I have styled "solution Dobell improved." This solution is similar in many respects to the Dobell-Pynchon. This is my formula:

Sodium bicarbonate, ozs. 2; sodium biborate, ozs. 2; menthol, drs. 4; glycothymoline, ozs. 8; glycerin, ozs. 24.

Adding of this 1 ounce to the pint, makes about the usual strength of Dobell's solution.

The patient should be seen twice or three times a week.

As a constitutional treatment, the syrup of hydriodic acid, codliver oil and malt prep-

arations, iron, quinine and strychnine, etc., should be prescribed. I have frequently found the vegetable alteratives and tonics to give quite good results in not a few cases. It is also quite important that those who are delicate, thin in flesh and predisposed to colds should wear sufficient clothing to protect the surface of the body and keep it warm. The feet should always be kept warm and free from perspiration. No class of patients requires stricter attention to the laws of health than those who have a predisposition to nose and throat trouble. Sleeping in crowded or overheated rooms is a dangerous practice. The sleeping rooms should be warm but well ventilated. Young children and adults with thin hair should wear nightcaps during the winter when retiring for the night.

The physician who pays the most attention to the small details in regard to having his patients follow out the proper observance of the laws of hygiene will be most successful with this class of practice.

Hernia Complicating Pregnancy

An Unusual Case, which was Cured by Operation

By MAX THOREK, M. D., Chicago, Illinois
President and Surgeon in Charge of the American Hospital; Ex-Associate, Diseases of Women, United Hebrew Charities

THE case reported below is instructive as well as interesting from a number of standpoints. It shows the benignancy of the presence of enormous-sized herniæ in some cases of pregnancy, as well as the brilliant results one may obtain, even in neglected cases and those of long standing, when subjected to proper operative care.

History of the Case

Mrs. Y. K., born in Russia, 41 years old. Has had nine children. No menstrual disorder, and has never been ill. At the age of 21 she observed, after a severe strain due to lifting a heavy trunk, that a slight bulging was noticeable in her right groin, which swelling was tender to manipulation for a few days.

She did not pay any special attention to the condition, consulting no one. The condition gradually became worse with reference to the size of the swelling in the inguinal region, but subjectively she was free from suffering until two years ago. At this time she felt pain and increase in size in the protrusion even on slight exertion. She went through her pregnancies and deliveries without much discomfort. Being anxious about her peculiar condition she applied to me for professional help and advice.

The Physical Condition

The patient is a middle-aged and well-built woman. She is found to be pregnant about eight and one-half months. The panniculus adiposus is well developed. In the right inguinal region a tumor is visible having the following dimensions: transverse measurement, 14 cm., longitudinally the tape registers 17½ cm. It is broader at the base and somewhat constricted at the upper pole, which latter occupies two-thirds of the mons veneris. The surface of the mass is smooth and of a globular form. The consistency is semifluctuating and the contents are easily diagnosed as intestinal.

Efforts at taxis in the recumbent posture are only partially successful. There is a marked impulse on coughing, and straining efforts visibly increase the size of the tumor. The position of the gravid uterus is found to be normal. The pelvis is of normal dimensions and the position of the child R. O. A. Numerous varicosities are observed on the lower limbs and about the genitoanal regions. The characteristic gurgling, indicative of enterocele, is found.

The size and tension of the hernia disappear when efforts at straining cease. Percussion of the sac elicits tympany.

The accouchement was uneventful, the only obstacle being the hernia, not because of any interference with the functions of the uterovaginal tract but as a mechanical impediment on account of its size and hanging in front of the parts contiguous, obscuring them from view. This state of affairs was, however, easily obviated by gloving the hands of the husband (there being no nurse in attendance) and instructing him to hold the hernia out of the way, toward the symphysis pubis. The puerperium terminated uneventfully.

The photograph shown here was taken three months after the delivery of the child and shows the condition prior to operation.

Operation was advised and accepted.

The Operation on the Hernia

The patient was thoroughly prepared, shaved, etherized and placed on the operating table, with knees flexed, and an effort at taxis made with only partial success because of adhesions between the omentum and intestinal adhesions to the sac wall.

An incision, elliptical in form, was made over the mass and a few careful strokes of the knife were rewarded by the appearance of the characteristic straw-colored fluid, indicating entrance into the peritoneal cavity. A mass of matted omentum presented itself, which was promptly dealt with by chain ligation and exsection. There was no constriction at the neck of the hernia, it being nearly as wide as the fundus. On account of the enormous size, as well as the length of time the hernia had existed, the coverings were fused into an unrecognizable thick layer of chronically inflamed tissue. Its structure was opaque and numerous enlarged and tortuous vessels were seen coursing through it. The canal of Nuck was converted into one huge opening in which no relation between the external and internal abdominal rings could be made out. The round ligament was adherent to the sac; it was exsected with the sac.

The epiplocele, as stated, was excised and the remaining enterocele, consisting of a number of feet of small intestine and part of the cecum, was examined and returned to the abdominal cavity. The repair of the inguinal canal presented obstacles on account of the anatomic disarrangement consequent to the condition, but was overcome by the usual technical steps employed in the Halsted-Bassini procedures. The patient made an uneventful recovery. The examination of the patient three years after the operation shows no tendency to recurrence and she enjoys excellent health.

The Hernia After Delivery

Conclusions

Large herniæ are more amenable to operative treatment and offer a better prognosis as to the permanency of cure in woman than in man, one of the reasons being that greater room is afforded for the reception of the enterocele in the more capacious female pelvis. Pregnancy is to be looked upon as a favorable condition instead of a

complication, because the gradual increase in size of the capacity of the abdomen due to the action of the gravid uterus on the abdominal parieties, while their resultant laxity affords space for the reception of the reduced hernia, which could not be accommodated in the smaller abdomen of male subjects, without resorting in extreme cases to more formidable surgical measures, such as resection of bowel, etc.

The Race Problem in America in its Relation to Criminal Sociology*

By G. FRANK LYDSTON, M. D., Chicago, Illinois

Professor of Genito-Urinary Surgery, Medical Department of the University of Illinois

EDITORIAL NOTE.—Recent statements made by Dr. Lydston concerning the negro race and the problems which are centered in it have been made the subject of perverted and inaccurate quotation by the newspaper and medical press. One journal heads a column with the line, "Lydston Would Have Whites and Negroes Marry," and it is represented that he favors miscegenation of whites and blacks. This Dr. Lydston brands as absolutely false. The truth is exactly the opposite, as any person familiar with his published writings can testify. Instead of favoring the mixing of races he has pointed out the danger which it entails and the imperative necessity of recognizing the existence of this problem and seeking a solution. This is the problem which he discusses here.

II

THE attitude of this country toward the negro is supremely ridiculous, however the race problem may be regarded. He occupies a plane of theoretic equality of citizenship, yet everybody knows there is no equality. Booker T. Washington, a man whose attributes make him worthy of association with even the most intellectual among white men, dines with President Roosevelt, and the latter is immediately put upon the rack of obloquy and criticism by the entire South, and, to a certain extent, by the North. In Europe—indeed, as I have already said, in every country save the United States—there is no definite color line. In the northern states the color line is definite enough, while in the South it is practically a "dead line." The social, political, moral, legal, and intellectual anomalies involved in the American attitude toward the negro are past understanding. Whether expedient or not, they are still anomalies, and show that we are evading serious issues.

It might be a selfish attitude, but one would almost be justified in feeling grateful for the fact that the culmination of the terrible race problem must be faced by another generation than ours—"after us the deluge." That it must sooner or later be faced is inevitable, unless greater intelligence is soon brought to bear upon its solution than has thus far been exhibited, and a radical change in the social, educational, political and moral management of the negro be instituted. If the black and white streams are to continue as theoretic organic blood-entities, flowing side by side in the same social system, the sooner the impossibility of any sort of equality between the races is understood, the better. If the races are not to blend—and heaven help us if they do—the white race must and will dominate, though the heavens fall.

Is There Likelihood of Social Equality

The fear of social equality of white and black is a bogy-man. The negro does not want it, nor could it be given him as a race if we would. He could not get social equality any more than a hod-carrier could break into New York's "Four Hundred." The same principle governs in each case. Social coteries and individuals alike will always draw their own social lines, irrespective of

race, occupation, or color. It is noteworthy, however, that the United States, the only country which stamps the negro as "free and equal," is the only country in which the color line is a dead line.

What does it all mean? It means that national white race intuition is blindly trying to protect the nation against the consequences of its own folly. Let political quacks and sentimental sociologists theorize as they may, the curse that the importation of the blacks inflicted upon America will accumulatively pass on to generations yet unborn. Our country has not yet settled its account with slavery. It has an account yet to adjust that shall make the enormous cost of the Civil War in blood, money and tears seem a trifling thing. If it is not adjusted in any other way it will be by amalgamation, for slowly but surely this country is becoming negroid.

Manual Education vs. "Higher" Education

If given a fair chance, manual training and industrial schools are destined to accomplish wonders in the moral training of the negro. Habits of industry and thrift, associated with the physique that proper physical exercise develops, will do more for his morals than any amount of preaching. The so-called higher education I believe to be a failure even with the lower class of whites. If this be correct, how much can be expected of it in the training of the majority of blacks?

This much is certain, if the negro is to be improved the work should be begun at the bottom. As a race, he may never become adapted to the higher educational ideal, but if he does, it must be by a gradual evolution, and not by a single mighty bound. Individual examples of high mental attainments exist, it is true, but they simply serve to show the possibilities of the race, and do not controvert the position I have taken. They do not prove a high average of intellectual capacity among the blacks, any more than Lord Bacon proved that any Englishman could be a Lord Bacon. A race that can produce a Booker T. Washington, a Du Bois, or a Paul Lawrence Dunbar has possibilities, but it will be many, many years before such men can be taken as criteria of the intellectuality of the negro. The occurrence of such men is almost incomprehensible. Is their strain of white blood responsible? The great men of the white race have centuries of civilization behind them; they are the focal point of ages of intellectual culture. Behind the great black man stands an entire tribe of West Coast Africans.

With the rise of average intelligence of the negro will come ambition. He will learn both good and bad political ambition from the whites. If we do not take away from him the rights granted by the Constitution, by repealing such part of it as favors his race, he will one day be strong enough to demand that those rights be made real, not visionary paper-rights. If we do legally take away his constitutional rights, his intelligence, ambition, and consciousness of power will one day inspire him to demand that they be restored and carried out in practice.

Negro Leaders of the Future

Will the negro lack leaders? Not unless Toussaint L'Overture, Alexandre Dumas, Frederick Douglass, Booker T. Washington, and E. B. Du Bois were sporadic freaks of nature, biologic sports, comets in the sky of organic development, the like of which will never again be born in the history of the race.

Booker T. Washington advises the negro to put away political ambition, "at least for the present," and devote his energies to self-improvement, moral training, education, and the acquirement of wealth and property. Astute politician, Mr. Washington! With the acquirement of the things he demands, and their satellite, ambition, all that is necessary is leaders and numbers to swell the tide, and nothing short of a war of extermination can stop the negro from obtaining the rights of man as the American citizen understands them, in theory if not in application.

Professor Du Bois takes issue with Mr. Washington. Clever though he is, he has not the latter's far-seeing vision. To learn to labor and to wait is the sure road to polit-

ical rights. Industrial schools are the kindergartens in which the primitive brain of the negro will begin its development. Training the hand involves stimulus of brain-growth.

The race problem in its specific bearing upon sexual crime in America is most important, especially in the southern states.

Whatever the merits of the "war of races" may be, it is certain that the South is accursed by frequent outrages of its women by negroes, followed by swift and terrible retribution. That sexual immorality and the perpetration of sexual crimes is not altogether one-sided nor monopolized by the blacks is also true, as will be seen later; but this does not lessen the specific importance of the sexual phase of negro criminality.

Although the majority of outrages perpetrated by negroes are committed in the South, because of certain conditions as regards the number of blacks and their peculiar environment in that section, similar crimes are claimed to be more frequently committed in the North by blacks than by whites, the numerical relations of the two races being considered.

In the study of the causes of the relatively frequent perpetration of rape by the American negro, numerous factors in the causation of crime in general should be considered. Only the special factors leading to sexual crimes concern us here.

Hereditary influences descending from the negro's barbaric ancestors are of prime importance. Considering the peculiar sexual customs of his ancestry, it is not surprising that antisocial traits—from our point of view—crop out frequently. Marriage among certain negro tribes is a close simulation of what civilized communities classify as rape. When the savage black knocks down his prospective bride with a club and drags her off to his kraal, he illustrates the prototype of the criminal sexual acts of the negro—and also of degenerate whites—in the United States or elsewhere. From the native African standpoint, however, there is nothing immoral or criminal in the negro marriage by capture—indeed, he draws a hard-and-fast line between it and what he calls rape—nor is it restricted to him alone, other primitive communities practising essentially the same custom.

The same method applied to the conquest of the female by degenerate whites or blacks in highly civilized communities is an infraction of law and morals, but it is not objected to by the occasional, or more than occasional, atavistic female. Among degenerate or reversionary types of whites sexual crimes are often a socially atavistic manifestation of savagery similar to that which occurs in the black rapist.

Influence of Heredity and Environment

Many centuries of civilization and appreciation of altruistic social obligations, i. e. expediency, have done much for the sexual subjugation of the white race, which is essentially a mixed type after all. We should consider, on the other hand, how short a time such influences have been brought to bear upon the American negro. We should also consider the fact that, from the standpoint of civilization and moral independence, his evolution really began with his liberation. Then, and then only, did he become a distinct social factor in this country. This by way of explanation, not of apology.

A disproportionate development of animal propensities incidental to a relatively low degree of differentiation of type is a marked characteristic of the negro. This, necessarily, is involved in the factor of heredity. It is a racial characteristic which, for physical reasons, environment will never entirely eliminate, although time will do much.

A relative defective development of what may be termed the centers of psychologic inhibition is characteristic of all races, white or black, of a low grade of intellectual development. This, with some races, might be corrected, but it certainly has not yet been corrected, nor is it probable that it ever can be completely in the negro as a distinct racial type. This is one of his racial handicaps.

Physical and moral degeneracy—the latter involving chiefly the higher and more recently acquired attributes—with a distinct tendency to reversion of type, is evident in the

southern negro. This physical and moral degeneracy and atavism is especially manifest in the direction of sexual proclivities. This is natural, accords with the principles of evolution, and applies to all races, but with especial force, perhaps, to the negro.

The cannibalistic sexual rites of Hayti and Liberia and the enormous increase of voodoo phallic worship among the southern negroes since the war are equally significant of atavism. When sexuality finds vent in phallic worship it is comparatively harmless as regards the individual. When it cannot be vented in this manner, it is likely to result in sexual crime.

Sex Morality Before and Since the War

The removal by his liberation of certain inhibitions placed upon the negro by slavery itself, which is so important in the causation of crime in general, has been especially effective as a causal factor of sexual crimes of the blacks of the South. The demoralizing influence of certain whites in the South, who did not recognize even sexual rights in their human chattels, was to a certain degree offset by fear on the part of the slave, yet it is remarkable that outrages upon white women were so rare. When the negro exhibited immorality in relation to the females of his own race he usually had the excuse of the bad example set him by the whites—often by his masters—who did not concede to the negress the attribute of virtue. Indeed, the negro, as a breeder, rather than as a moral factor, was often the slave-owner's chief concern.

The old idea that the negress had no sexual rights has lost ground since slavery days, but the view that she necessarily has no virtue—that virtue is an attribute impossible to the race—still exists. While not a subject for discussion in circles polite, cohabitation with negresses would appear to be in some quarters tacitly understood to be inseparable from the wild-oat sowing of youth. Moral instruction would seem to be needed nearer home than by the negro. Do not the mixed breeds prove my point?

Much of the racial trouble in the South today is due to the intrinsically immoral attitude of some whites toward the negro. That a powerful undercurrent of resentment should exist in the minds of the blacks is but natural. That the whites have not always set them a good example is self evident. The prevalence of venereal diseases among the negroes and the whites who consort with them, and the large number of illegitimate mulattoes in America bears witness to this. How illegitimate relations of whites and blacks can be condoned or even tolerated, while miscegenation is legislated against, is perplexing to the logical mind. Be it remarked in passing that venereal disease is one of the curses which civilization brings to primitive folk. The South-Sea Islanders told me, when I asked about the prevalence of venereal diseases, that, "White man bring um; we catch um."

We are perforce compelled to admit that synchronously with the passing of the old-time slave—who still revered "ole marse and mistis"—and the incoming of his degenerate descendants, all kinds of criminality in the southern negro increased. Considering his disproportionate sexual development, is it remarkable that, with the removal of his inhibitions, sexual crimes—which were hitherto almost unknown—should result? The idea of equality with the whites—who were no longer to be revered as demigods—seething in the ignorant minds of the younger generation of blacks played a powerful role in determining the sexual direction of their antisocial acts.

The Negro Does Not Understand

An incapacity of appreciation of the dire results to himself of sexual crimes is evident in the lower-class black. This incapacity is characteristic of a low type of organization, and such little sense of personal responsibility as a large proportion of the race naturally possesses is readily inhibited by excitement of the lower brain centers by anger, alcohol, or the *furor sexualis*. The higher faculties of the brain—those of ideation and reason—are better developed in higher types of humanity, and there is usually a corresponding lack of development of the lower, or more strictly animal, centers.

When, therefore, in the superior race a struggle for the mastery arises between the intellectual faculties and animal impulses, the balance is likely to be with the former, particularly when a keen sense of personal responsibility comes into play; the reverse obtains in the black.

When all inhibitions have been removed by sexual excitement, there is little difference, so far as the sense of personal responsibility is concerned, between the sexual furor of the degenerate human being and that which prevails among the lower animals, in certain instances and at certain periods. This is not confined to the blacks, but is observed, although much less frequently, in some sexual criminals among the whites. This reversion of type is both physical and psychic, and must be taken into serious consideration, as it bears directly upon the question whether or not it is practicable to remedy the resulting evils by the present methods of punishment and revenge?

Kiernan has asserted that *furor sexualis* in the negro resembles similar sexual attacks in the bull and the elephant, and the running *amok* of the Malay. He further notes the sadism manifested by the negro in the torture or murder of his ravished victim. This is distinctly atavistic and occurs occasionally in whites.

Religious Emotionalism and Sex Crimes

The seeds of religion sown upon the soil of ignorance and superstition have had much to do with the development of criminality in the negro. Whether no religion at all would not be better for a large proportion of the lower-class blacks is at least debatable ground. When a low type of race is subjected to emotional strain, inhibitions are removed and primitive instincts or bloodthirstiness comes to the surface. The anabaptists of the Lutheran Reformation threw all restraint to the winds and indulged in sexual murders. These anabaptists were chiefly serfs who had been inflamed by fallacious notions of the clergy emanating from the time-honored text, "And they, the disciples, had all things in common, in love preferring one another." Influences of this character affect the negro race in consequence of the quality of preaching that degrades.

There is more than an indirect relation between the emotional excitement associated with religious fervor in the blacks, and outrages upon white women. Angels are depicted as white, and their pictured beauty has a very disastrous effect upon the brain of the negro when his emotional centers are in condition of autoerethism characteristic of religious excitement. The result, in brief, is an inflamed desire for the possession of females of the superior race, and an increase of what may be termed sexual curiosity. A celebrated southern negro divine has similarly expressed himself. This clergyman said that, in his opinion, fewer white angels and more black ones would have a repressive effect on sexual crimes among the blacks.

The view that repentance upon the scaffold is a guarantee of divine favor is quite general, and is especially potent in its influence upon the blacks. The condemned negro who does not believe that he is heavenward bound as he stands upon the scaffold, or confronts the infuriated citizens of the community in which he has committed an outrage, is a rarity. Like poor, crazy Guiteau, he sings, "I'm going to my Lordy." It is not a long step backward from the pious and superstitious negro who, in the shadow of the gallows-tree, believes he is on the short-cut to heaven, to the Zulu who in battle courts death because the religion of his fathers has taught him to believe that an eternity of happiness lies just beyond the enemy's spear or bullet. The indifference to death which heredity and religion —both heathen and Christian—have imparted to the negro, associated with the moral anesthesia of the more degraded of the race in America, is one of the chief factors in defeating the aim of capital punishment, viz., repression of crime.

Capital punishment is not a brilliant success in the repression of crime, even among the whites, whose nervous organization and sensibilities are more refined than the

blacks', and who, therefore, should be expected to have a keener appreciation of present existence and a greater dread of that "something after death" which makes cowards of most of us. Du Bois himself has said, "Of death the negro shows little fear, but talks of it familiarly and ondly as simply a crossing of the waters, perhaps—who knows?—back to his ancient forests again."

The greater frequency of rape in the South is explicable in part by the climate, which is much more favorable to the perpetuation of the primitive impulses of the black race than is that of the North. Reversion of type—both physical and psychic—is more likely to occur under the influences of the climate which most nearly approximates that in which the race was originally bred. The influence of climate upon the sexual function is powerful in even the Caucasian. Seasons also have their influence,[6] as every student of sexual physiology well knows. Aside from the influence of climate, the northern and southern negroes are, on the average, widely different, physically, intellectually, and as social factors.

As to the remedy for rape, there is but one—total ablation of the sexual organs. One emasculated rapist in our social system is worth much preaching and a multitude of hangings, legal or illegal. And let us be impartial. We should give the white rapist exactly the same medicine we give the negro rapist.

Clinical Notes on Cardiac Irritability, or Cardiac Neurasthenia

By BEVERLEY ROBINSON, M. D., New York

IN this trouble of the heart I have found, by experience, that some widely received statements are not wholly reliable, and also that there are exceptions to many accepted rules.

To begin with: I fail to recognize in strychnine a remedy of much value in these cases. After giving this drug in moderate doses for days or weeks, the patient is not sensibly any stronger or better for its use. On the contrary, it has increased manifest nervousness, produced wakefulness at night, and did not give greater strength to the heart-beats or to the general system.

In certain instances, in view of obstinate constipation, especially among women—and despite this knowledge—I have been obliged to continue it in small doses, once or twice in the twenty-four hours, combined with aloin and belladonna. The belladonna in these cases is quieting to the heart as well as relaxing to the bowels.

The two tonics, or cardiac stimulants, which have most immediate good effects are caffeine and strophanthus. The former should be given as the citrate and the latter as tincture, and both in tablet-triturate. In this form they are less objectionable to the stomach. And this is important practically, because frequently stomachal intolerance is an accompaniment of functional cardiac disturbance. I know of no way so universally good of giving certain tinctures as the tablet-triturate form, and those of our best homeopathic pharmacies, it seems to me, are preferable because of the use of mother-tinctures and the more perfected trituration, in addition to the fact that they use the fresh plant for preparing their tinctures. Digitalis in this form may often be used advantageously for a while, after stomachal intolerance has subsided—scarcely ever before that.

With palpitations, frequent heart-beats, somewhat irregular and feeble pulse oftentimes, and faintness and pallor coming on

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(6) "Influence of Seasons upon Conduct." Leffingwell.

suddenly, there may be marked facial flushing, bad headache and even marked dizziness. Nothing seems to relieve these symptoms so rapidly as caffeine citrate, in 1-2 to 1-grain doses, repeated in three hours or less.

Cactus a Valuable Remedy

Formerly I made use of cactus, and while I recommend it in some instances, it does not act as rapidly as caffeine and should be reserved for patients in whom one wishes slower and more continuous effects. That wise and experienced observer, Dr. Roland G. Curtin of Philadelphia, has had happiest results from the combined use of cactus and digitalis. (*Therapeutic Gazette*, Nov. 15, 1908.)

No local applications, such as cologne, camphor spirit, ammonia, mustard spirit, etc., have much beneficial effect, at times without the use of caffeine internally. Quiet, rest, freedom from noise and excitement, continuously and for weeks at a time, is all-important.

The meals should be light, nutritious and easily assimilable. The evening meal should be of milk toast, crackers, arrowroot, blancmange, custard, broths of meat, or light soups of other kinds (rice, potato, celery, etc.), usually strained.

It is wiser to avoid meat *absolutely* and even fish at the evening meal, which should be taken between 6 and 7 p. m., going to bed at 9 o'clock.

Any stomachal or intestinal intolerance is quieted and relieved permanently better with milk of bismuth, frequently repeated, than in any other way I know. It is one of the best of intestinal antiseptics, and not in the least injurious. When it fails, or alternating with it after a few days' or weeks' use, one or two lactobacilline (lactic-acid) tablets should be taken. At times these act marvellously, relieving headache, promoting sleep, quieting the nerves, regulating digestion, and apparently reducing gastrointestinal autotoxemia. Then again, and for no obvious reason, they are without effect, bad or good, so far as may be determined.

The best of all nerve tonics in these cases is the glycerophosphate of lime and soda, combined in 5- to 10-grain doses, three or more times a day, and preferably taken after eating, and even if eating only very lightly.

The Use of a Hypnotic

If any hypnotic is required (and they are all bad except as a makeshift), bromural is the least objectionable, in 5- or even 10-grain doses. It soothes the jaded nerves and gives quiet sleep for several hours. It is well to bear in mind that gentle massage treatment, especially of the lower limbs, just before retiring, will bring on restful slumber when otherwise a wretched night and a demoralized awakening are the sure prospect.

I might readily add to the foregoing notes, which are the result of close watching and doing, and will prove valuable, I am confident, to someone who, like myself, has often "borne the burden and heat of the day."

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[Dr. Robinson's experience with strychnine harmonizes with our own. We do not find strychnine the remedy for these cases of cardiac irritability in which cactus has given such satisfaction, and reiterate our belief that when one of these remedies is indicated the other is not. We do not like tablet triturates: if they are lightly compressed they chip off or disintegrate; if firmly compressed to a pearly consistence they pass through the bowels undissolved. We prefer the milk-sugar granule for these reasons; it is soluble and doesn't chip off readily.

We need new studies of the whole group of heart tonics, based on the questions of which function, which part of the cardiac mechanism, each tones; how soon, how much, how lasting. Dr. Robinson gives an illustration of what may be done by a close observer in his use of caffeine for a quick effect, cactus for a more enduring action. As general tonics we wish Dr. Robinson would try the arsenates. Who will extend our knowledge along this line?—ED.]

Alkaloidal Therapy*

By G. H. SUMNER, M. D., Waterloo, Iowa
Secretary of the Iowa State Board of Health

DR. CHASE, the chairman of this section, has asked me to prepare a paper of fifteen minutes' duration on the subject of "Alkaloidal Therapy." In responding to this request, I shall not try to produce an olio but shall endeavor to give the *sine qua non* in therapeutics.

The three essentials in successful therapeutics are *promptness*, *accuracy* and *minimum dosage*. There has never been any controversy in regard to the first and second. The last-named, minimum dosage, has been in the past and will be in the future the subject for discussion.

Holmes has well said that "when facts are numerous and unmistakable and unequivocal in their significance, theory must follow them as best it may;" keeping with their step and not going before them.

The Progress of Twenty-five Years

During the last twenty-five years more progress has been made in the diagnosis and treatment of diseases than in the preceding one hundred.

Operations considered impossible in 1870 are now easily and safely made by thousands of surgeons.

The death-rate in infectious, contagious and many other diseases has been greatly reduced. Many diseases have been shortened, all ameliorated, and some altogether aborted.

The amount of good done by the x-rays, Finsen light, static electricity, vibration, etc., cannot be appreciated or estimated.

Opium, morphine, alcohol, heroin, hyoscine, codeine, cocaine, chloral, and other toxic drugs, habitually used, produce diseases which readily yield to modern methods and systematic treatment.

This shows in a measure our progress in professional skill.

With the exception of a few drugs—by no means all even of the socalled specifics—remedies are given because experience has shown that they do good in certain diseases or relieve symptoms.

Empiricism is today almost the sole basis of therapeutics. To decry the use of such agents because their action cannot be theoretically explained or demonstrated by "*in vitro*" experiment is neither scientific nor common sense.

The theorist may criticise but the clinician is the court of last resort, and results are the object to be attained.

Having said this much in a general way, I am now constrained to say that to him who is accustomed to seek for the underlying causes of phenomena presenting themselves, the present attitude of the medical profession and of the public at large toward drug medication is significant. To comprehend the situation, we must go back to the time when drugs were administered with no other guide than a routine course of treatment as laid down by some author. Of the how or why of their action the physician was ignorant. He only knew that under certain conditions, when drugs were administered, the patient recovered or died. As superstition and ignorance were dissipated by the light of knowledge, the action of drugs was questioned; and, as the inevitable reaction followed inordinate dependence upon these agents, public and professional faith in them was becoming extinct.

Oliver Wendell Holmes voiced the coming nihilism when he suggested that if all the drugs were thrown into the sea, it would be better for mankind but worse for the fishes. This smart saying has since been repeated with innumerable variations, so frequently that it seems to have become firmly implanted in the subsconciousness of the public. For this pessimism there existed only too much reason in the imperfection of the drugs of the materia medica. Our medicines were

*Read at the last meeting of the Iowa State Medical Society and reprinted from the Journal of the Iowa State Medical Society, Oct. 15, 1909.

nauseous, uncertain and variable in action, and too frequently ineffective. Much of this was due to the variability necessarily inherent in vegetable preparations.

Reasons for Drug Variability

The medicinal elements found in plants were not prepared by the mother plant expressly for the use of man, but to fulfil certain offices in the vegetable economy. Under varying conditions of sun and shade, moisture and dryness, soil, season, etc., the active constituents of a plant vary as to their nature and their quantity; and, as these were practically unknown to those who collected the drugs, the result was a variability in the nature and the extent of the action of the various preparations made from these plants, which sometimes veered about the entire therapeutic circle.

To take an example, very frequently quoted, jaborandi contains two antagonistic principles, one of which tends to induce sweating, salivation and a flow of the mother's milk, while the other antagonizes these three actions, drying up the three secretions mentioned. Sometimes the plant develops one preponderatingly, sometimes the other. Consequently we may have precisely antagonistic action exerted by some specimens of the plant as compared with those exerted by others.

In a number of vegetable remedies a similar antagonism is shown, as for instance hyoscyamus, opium, and gelsemium; while in others, as the cinchonas and the strychnine group, the active principles, although present in variable quantities, exert a remarkable harmony of action. Of the many active principles existing in cinchona, the four which have received study differ only in the quantity of the effects they exert, and but little as to the quality. I refer to the four alkaloids: quinine—the most valuable; quinidine—the strongest antiperiodic, but present in very small quantity; cinchonine—the least valuable; and cinchonidine—one-half the strength of quinine.

It is a reasonable inference that the old materia medica would never have been deserted as it has been, had it been good enough to fulfil the need. *It was not good enough* and the profession and public looked for something better. For a time this was supplied by the enterprise of manufacturing chemists. These gentlemen devised for us compound preparations, each designed to fulfil a certain number of indications, with a remedy in acceptable form and covering as many therapeutic applications as the ingenuity of the chemist could devise. These were tried and in many instances proved efficient. The faith that was waning in the old, crude materia medica was reposed upon the new, and many a physician put his faith, and does yet, upon these products of the manufacturer's skill. Whatever may be said against the medical proprietary, we must give it the credit of having sustained faith in drug therapeusis during a critical period.

The No-Drug Methods

In the meantime there had arisen an innumerable brood of no-drug therapeutic methods. Most of these originated outside the medical profession. The public was taken with their novelty and patronized generously the introducers. This led physicians to investigate, with the hope of finding something to take the place of the now discredited drugs and to avail themselves of the popularity of the novelties. To a certain extent the physician is unable to obtain as satisfactory results as the quack. The knowledge of pathology makes the man who knows hesitate at promising a cure, whereas the man who is supremely ignorant of physiology and pathology has no such scruples. Moreover, when a practician uses only one remedy for all diseases, a knowledge of pathology is superfluous. He does not have to make a diagnosis, since in any case his therapeutic application is the same.

The law has recognized these facts in so far that it permits such practicians as have had no education in the science of medicine to employ their special therapeutic measures in the treatment of the sick, in fact to do everything except the prescribing of drugs. This has wisely been restricted to the regu-

larly educated physician. Unfortunately, instead of availing ourselves of this priceless monopoly and developing drug medication to the utmost, we have tamely assented when the practician, who did not know how to use drugs and was legally debarred from using them, stoutly asserted that they were of no use anyhow. We have thus given our sanction to this assertion, to his enormous benefit and our corresponding detriment. Since we alone are permitted to use drugs, it would seem the part of worldly wisdom that we should therefore develop our monopolized field to the utmost extent of its possibility. We should ascertain just how much can be done by drugs and then do it. For this purpose the widest experiments should be made, not only in the laboratories upon animals, not only upon human beings in a state of health, but especially and above all upon those whom we are called upon to treat.

In order that such experiments may have value, it is absolutely necessary that the agents which are employed be uniform and unvarying in their effect; or by no possibility could we imagine a uniform and unvarying action to be predicated of a drug whose composition and effect are neither uniform nor invariable. We cannot positively and certainly assert the power of opium to relieve convulsions, since under some conditions opium powerfully induces convulsions. We are compelled to make our studies upon morphine, which, whatever else may be its fault, does not do one thing today and something else tomorrrow, but under most conditions exerts precisely the same action when given in the same dose under the same circumstances.

The Active Principle—This Is What Counts

We take up, therefore, the vegetable materia medica, and what do we find? In each medicinal plant the therapeutic action depends on certain elements which we call the active principles as distinguished from the inactive, or inert, parts of the plant; and, if a part is inert, why should we use it? In point of fact, the really valuable proportion of every plant-remedy is exceedingly small. Let us assume one percent as the average part of a drug that is really active as a medicine. The remaining ninety-nine percent is simply encumbering dirt. It is worse than useless, because it makes the dose one hundred times larger than it need be, encumbers the stomach, hinders the action of the digestive fluids in dissolving out and utilizing the remedial parts of the plant, and renders the dose irritating and difficult for the stomach to retain. An enormous advantage is therefore gained by leaving out the useless dirt and using only the real active part of the plant.

This active part of the plant, however, is not uniform. There may be all the way from one to thirty different active principles in the single plant, each having an action different from all the others. These principles are also, as I have said, developed unequally in different specimens of the plant. We may have eighteen percent of morphine in opium or we may have none at all. In hyoscyamus we may have an excess of hyoscine, that element which induces sleep, or an excess of hyoscyamine, the element which, on the contrary, prevents sleep.

In uva ursi we have a very valuable medicament for catarrhal affections of the bladder. I refer to arbutin. We find, however, in this plant that one grain of arbutin is accompanied by thirty-five grains of tannic acid. In France arbutin has proved remarkably successful in the treatment of the worst forms of gonorrheal cystitis, the remedy being given in doses up to forty-five grains per day. We thus find that in order to administer the forty-five grains of arbutin to our patients, if we use the plant itself, we are compelled to give with it fifteen hundred seventy-five grains of tannic acid, a dose which would assuredly kill a whale. This reduces the plant uva ursi from the position of an effective agent in this disease to that of a very mild, uncertain adjuvant, which is practically used, if used at all, only as an excipient remedy.

Why Swallow the Dirt?

Throughout the whole vegetable materia medica the same principle holds good with

the older drugs. We swallow incalculable quantities of dirt; some of this dirt, although not inert, exerts an effect which is injurious as well as undesirable, yet we swallow it, for the sake of the minute quantities of active principle which alone we require. It seems a very simple matter that we should extract the active principles from the plant and use exactly the ones we want in exactly the dose we need—and this is the whole sum and substance of the alkaloidal therapeutics.

It is to be noticed that, with some exceptions, the proprietaries are just now being loudly denounced. These exceptions refer to a class of patent medicines known as the synthetics. Most of these originate in Germany. All are protected by patents or other forms of monopoly, so that if the physician desires to make use of them, he is compelled to pay whatever tribute the owner wishes to exact. Nevertheless, they partake of specific values of the active principles of plants, in that they are for the most part simple, definite remedies of uniform composition, whose effect, once ascertained, may be confidently expected from every dose of the medicine which may be administered.

This brings me to what is, in one respect, the most important point of this paper, the fact that the active principles are not monopolized. No patent, copyright or other form of monopolistic control exists in the case of aconitine, digitalin, quinine, morphine, or any other of the active principles of plants. They are absolutely free for every physician, druggist or other person to manufacture, buy or sell, at his own sweet will.

The Rise of the New Materia Medica

From the ruins of the old materia medica a new and better one is arising. It is simple, comprehensible, unmonopolized. It is based on simple principles which cannot be denied; that is, that the remedies to be used should be unvarying, that each of them in a given dose should invariably exert the same effect, in quality and in quantity. Not but that the reaction of the patient may differ—and here is an element of uncertainty which we cannot control, except by the skill of our diagnosis. But the remedy under the same conditions must always exert exactly the same action. This gives us, as has been said, one firm footing. Starting with this certainty, we can build far, just as measuring a comparatively small line on the surface of the earth enables us to compute the distances between star and star.

It has been claimed, and it is true, that the use of these definite, uniformly active remedies compels the physicians to a closer study of pathology and physiology. For a uniformly acting remedy is worthless in the hands of a physician who cannot recognize distinctly the disordered condition of his patient's economy to which these remedies are to be applied.

The use of drugs is based, as I have said, on simple principles. We have in these remedies agents which exert a certain effect upon the human economy in disease. This effect is a raising or lowering of some one or other of the vital functions. Granting that drugs do exert some effect on the human body, it is up to us as physicians, knowing exactly what this effect is, to look in our patients for those conditions which need to be altered in the way each drug alters them. If we know that a certain function in the body is raised by a certain drug, and we recognize in our patients that that particular function in the body is below the normal in its activity, what is there more simple than to give this drug in doses enough to raise that function to its normal action? This restores the physiologic equilibrium which constitutes health. It is an exact scientific method of medication. It may be that the drug acts by removing the cause which depresses or elevates the disordered function, or it may be that it acts in some other way. This is a matter for individual attention in each individual case, but it forms no part of the present discussion. If we admit that drugs have an action upon the human body, the rest follows logically.

It is up to us to study the physiology and pathology of the human body so thoroughly that we will be able to recognize pathologic conditions as they arise. In the meantime we study our drugs in such a manner that we know, when we have recognized any

pathologic condition, exactly the remedy to be given to restore health.

The theory is simplicity in itself; its application is inexpressibly easy. In the vast majority of cases that come to the physician he is able to recognize the disorder. He may even be more ready to recognize a disorder than to assign it a name, for there is a radical difference in the study of disease as systematically classified in our textbooks, and the study of disease as it presents itself to us in the sick room.

The Treatment of Hyperpyrexia

I will take for example only the familiar one of hyperpyrexia. No practising physician confronted with a temperature of 106° or 107°F. stops to make laboriously an exact diagnosis of the disease to which the hyperpyrexia is due. He at once goes to work to subdue the hyperpyrexia, and bring the temperature down to a degree that is compatible with the continued life of the imminently imperiled nervous centers. While I am far from inculcating a neglect to classify disease, I wish to insist on that more direct and more important form of diagnosis which consists in recognizing the departure from health, the disease-conditions, and the instant application to them of the remedies which we know will tend to restore health.

The direct application of drugs to disease-conditions thus presented grows to be a custom with those who employ the active principles. It cannot be looked upon as an evil; but on the contrary, it smooths the way for the young practician, removing from his path most of the difficulties which he encounters, when he endeavors to transfer the knowledge he has obtained in his college course to the varying conditions presented by the sick-room. It sweeps away from the path of the physician most of his competitors. For no advertising quack, osteopath, Christian scientist, or other suggestive practician can compete with the thoroughly equipped physician who sits down by the side of his patient, correctly estimates the conditions under which the patient is suffering, and correctly applies the proper medicines in exact dosage sufficient to restore health. Here is a field where we are supreme; and the more we cultivate this field the more we eliminate our unworthy competitors and regain the confidence of the public.

The advantages of this method are numerous, the disadvantages are only apparent and disappear when it is put in practice. For the first time in the history of medicine the dosage of remedies has been reduced to an exact science. Too little dosage or too great dosage is impossible under the system employed, whose minute doses of remedies in a shape to be rapidly absorbed and put to work are repeated at close intervals, until we have obtained exactly the desired effect, no more and no less. The remedy is then stopped, or continued at intervals just enough to sustain the desired effect. There is no overstimulation by each dose, followed by a perilous depression between doses. The action is uniform and continuous. The certainty with which the desired results follow the use of the medicine imparts a charm to the practice which was never realized before.

Nearly every army in Europe has adopted this system of medication. The portability of the remedies and the ease with which they are instantly administered, without the need of water or other excipients, commends itself to the army surgeon. When thirty thousand doses of medicine can be reduced from a load for an army mule to a case which can be carried in the overcoat pocket, the advantage is obvious. Some of you present here may recollect the time when for the cure of malarial fever patients were compelled to swallow an ounce of cinchona bark. Not even the whisky which was liberally dispensed as a vehicle would induce the stomach in every instance to retain the desirable dose.

We now a-days accomplish the same end much more effectively by the administration of ten to fifteen grains of quinine. In this we have all appreciated at least the point of the alkaloidal practice. Moreover, we know that we can obtain from quinine many useful services which were practically impossible as long as we were limited to the

use of the Peruvian bark. New avenues for the usefulness of this powerful medicament have been opened by its being furnished in the alkaloidal form. We have been slow to realize that the same enormous benefits may be attained by similarly treating each of our vegetable remedies. When we do so, we shall commence also to realize the enormous possibilities for good lying in this little-cultivated field.

Ventral Hernia: Its Ill Effects and Possible Cure

By C. FLETCHER SOUDER, M. D., Philadelphia, Pennsylvania

REPORTS of abdominal operations state that from five to ten percent result in ventral hernia. The plan of arriving at an estimate at a certain large hospital, on the statement of an attending surgeon, was to wait about three months, then to consider the patient cured unless he returned in the meantime with a ventral hernia.

As to this method, should a ventral hernia develop in a given case, would not the patient, in many instances, feel disgruntled and go elsewhere or not report to anyone? Are such statistics at all reliable? Do not a large percentage of ventral hernias develop months and years after the operation, and is this lesion not liable to occur at any subsequent time?

The Course of Ventral Hernia

What is the most likely course a ventral hernia will follow? The hernial opening may remain small, but the tendency is to increase in size and grow worse and it may eventually extend along the entire length of the incision. The incised muscles may remain firm and in good condition, or there may be partial or extensive atrophy, frequently involving the greater part of one side of the abdominal wall. The atrophy of the affected muscles may be so complete as to render it difficult to determine where the hernia begins and ends, or whether a hernia actually exists. The writer has met with numerous cases in which the entire incision had broken down and the severed muscles were so completely absorbed as to require the probable cutting out of all the abdomina wall extending from the median line to near the back and possibly ten inches in breadth were an attempt made to relieve the condition by another cutting operation. If you have not met with similar cases you cannot well imagine the extent of the havoc wrought, or the difficulty that would be experienced in attempting to relieve or cure the injury.

Other Results of Cutting Through the Abdominal Wall

What other conditions are liable to result from cutting through the abdominal wall?

Is not the wound liable to slough and discharge for months or years afterward and probably result in ventral hernia? Are not stitch-abscesses liable to occur months or years afterward and forcibly terminate in ventral hernia? Is not much of the distress and suffering so frequently complained of by patients following abdominal operation usually due to adhesions having taken place between some portion of the abdominal organ and the wound or stump even though no hernia exists? Does it not require constant care to prevent adhesions from taking place between the border of a hernia and the protruding tumor?

Is it not doubtful whether surgical methods will ever be able to overcome entirely the liability of ventral hernia developing following abdominal operations, however successful and skilful the operator may be? Although Castro, ex-president of Venezuela, traveled thousands of miles to engage the services of a noted surgeon, the reports state

that a ventral hernia has developed in the line of the incision, thus serving to prove that it is beyond the power of the surgeon to prevent such an accident.

What can be done to cure or control these conditions? Can another cutting operation be depended upon to cure permanently a condition of its own making, due to failure and when other dependent conditions are usually less favorable than existed at the first operation?

Castro and His Hernia

At the present writing, Castro has not undergone another cutting operation for the cure of his ventral hernia. If the chances of success were favorable, is it likely that he would have attempted a return voyage to his native country without having had it attended to? Does his case not also serve to prove that while a cutting operation can bring on such a condition, surgeons are now helpless to benefit them except by another operation, and that that is not always advisable?

It is doubtful whether any other treatment or means offer as great prospects of preventing, checking or curing ventral hernia, in its earliest stages at least, and with as little risk, as does the injection-treatment.

If Castro's condition is due to an ordinary ventral hernia, and if the opening be small, in all probability a few injections of alcohol or possibly a stronger fluid, if given at the first appearance of the breakdown, would have closed the opening and possibly prevented further damage occurring, and the report would not have been spread all over the civilized world that this conspicuous man returns an invalid and has to be carried on a stretcher. While no criticism is intended toward those who have had his care in charge, as they doubtless exercised every precaution known to them, has not the wide publicity been injurious to the value of operations in the minds of the public?

The following case is presented in detail in order to give an exact account of the patient's condition and what has been accomplished by the injection-treatment.

The patient was operated upon during February, 1908, for appendicitis. A ventral hernia appeared in October the size of a dime and one inch from the line of incision, following a stitch-abscess. A finger passed readily through the opening. The surrounding muscles were firm and in good condition. The patient received, during November, four injections of from 5 to 10 minims of 95-percent alcohol a week or so apart. At the present time, 17 weeks after the last treatment, the hernial opening is closed, union is perfect, and there is no depression upon palpation. During January, 1909, marked bulging and a depression appeared near and at the side of the incision, an inch or so higher up, the size of a quarter. The opening was not complete nor were the borders distinct. Four injections of alcohol have been given since. For a while the condition seemed to spread toward the first hernia, and indications were that all of that part of the wall would become involved as well as the adjoining side of the incision. While there still remains some slight bulging when the man stands up, the affected area is now much thicker, firmer, and much less depression is felt on palpation.

Muscular Atrophy

Where there is extensive atrophy of the muscles or where the opening is large, no efforts, so far, have been made to heal these conditions. From past experience in healing other small ventral hernia, the writer feels justified in calling the attention of the profession to its possibilities. A more astringent or irritating fluid than alcohol alone may be required.

Are not many cases of ventral hernia now hopelessly incurable, and will those persons not continue to endure constant annoyance, suffering disability and possibly invalidism, the rest of their lives? If so, is not ventral hernia a serious matter, and is it not better to avoid subjecting patients to the possible occurrence if it can well be avoided?

Examination of Stained and Unstained Blood Specimens

How It Aids in Diagnosis and Treatment

By J. FAVIL BIEHN, M. D., Chicago, Illinois
Former Director Laboratories of the City of Chicago; Director Scientific Research Laboratory, The Abbott Alkaloidal Company

ALTHOUGH hematology is one of the most important branches of diagnosis, very few physicians realize its value sufficiently to utilize it. This is mainly owing to the fact that it has been taught in our medical schools for a few years only, and then merely in a perfunctory manner. Its infrequent use is probably also due, in a measure, to the belief on the part of many that complicated and expensive apparatus is required and that there is also much labor involved.

While it is true that it is a somewhat delicate and complicated procedure to count the red and white corpuslces by means of the Thoma-Zeiss apparatus, this is not the only and in fact not even the most valuable portion of hematology. It is true that an enumeration of the number of red corpuscles is usually necessary to determine the presence of anemia, except in its graver forms, when a diagnosis is easily made by other clinical methods.

How to Estimate Hemoglobin

The estimation of the hemoglobin by the Tallquist method is a very simple procedure, just as simple as the recording of the temperature by a clinical thermometer, and should come into more general use. This alone will often give an indication of the condition present.

Any of the anemias, even in their very early stages, whether they occur alone or in combination, may be very readily diagnosed by the determination of the color-index. The method is as follows:

Divide the percentage of hemoglobin by the percentage of the number of red corpuscles. To obtain the percentage of the number of red blood-corpuscles, multiply the first two figures by 2. Example: 3,400,000 is 68 percent; if the hemoglobin is also 68 percent, the patient has a color-index of 1, which indicates that each corpuscle has its full quota of hemoglobin and the patient is suffering from a secondary anemia—a simple reduction in the number of red corpuscles, due to some intercurrent disease.

It is obvious that such a case will receive more benefit from remedies directed to the cure of the underlying pathological condition with strychnine, arsenic, etc., than from the exhibition of iron. *Iron will not make red blood-corpuscles.*

A patient with 4,500,000 red corpuscles has 90 percent of red blood-corpuscles. If the hemoglobin is 80 percent the color-index will be 0.8. This patient has a slight anemia, because there is a reduction of 10 percent in the number of red blood-corpuscles, and also a slight chlorosis, since the color-index is below 1.

In this case iron is indicated to increase the amount of hemoglobin, and arsenic and like remedies to increase the number of red blood-corpuscles.

In chlorosis, while the number of red blood-corpuscles is usually very nearly normal, the hemoglobin is markedly decreased, therefore the color-index is very low, in some cases being only 0.2. This explains why these cases react so readily to iron medication.

The Red Cells and Their Significance

In pernicious anemia, aside from the characteristic blood-picture, nucleated reds, etc., we have a very severe degree of anemia, there being often only 1,000,000 red blood-corpuscles, or 20 percent of the normal amount. The hemoglobin also is decreased, often to 40 percent; but if we estimate the color-index, we find that it is 2. This means that nature is attempting to make up for

the loss of red blood-corpuscles by increasing their size and doubling the amount of hemoglobin in each. In this disease the exhibition of iron is of questionable value.

In the general field of diagnosis, aside from the anemias, the leukocytes, especially in a differential count, play a most important part. The blood examination alone will not enable us to make a diagnosis in all cases, yet there are a few conditions that can only be positively diagnosed by this means, such as malaria, lymphatic and splenomedullary leukemia, trichinosis, trypanosomiasis, etc.

Leukocytes and Leukocytosis

The counting of the number of leukocytes is only of relative value. A condition in which an increased number of leukocytes is present is termed a leukocytosis. Owing to the fact that there is a physiological as well as a pathological leukocytosis, and that most clinicians use merely the term "leukocytosis," considerable confusion has arisen.

A leukocytosis, that is, an increase in the number of white blood-corpuslces over 7000 to 10,000, may be physiological, and occurs in infancy, during the latter months of pregnancy and for some weeks after delivery, after violent exercise, after cold baths, for two or three hours after a meal (digestion-leukocytosis) and during the death agony. This *physiological* leukocytosis can easily be recognized by the fact that the percentages of the various types of leukocytes are normal.

Five Diseases Characterized by Reduced Leukocytes

A reduction in the number of leukocytes, or a leukopenia, is practically always pathological and occurs in the following five diseases: tuberculosis (unless accompanied by secondary infection), typhoid fever, measles, malaria and influenza.

From this fact any one of these diseases can be differentiated from all others not included in this group by merely counting the number of leukocytes, or one can determine this fact by the simple examination of even an unstained smear after a little experience.

Normally the red and white corpuscles are present in a proportion of from 700 to 1. If, therefore, in looking at an ordinary smear, several thousand red corpuscles are seen to one leukocyte, the condition is one of leukopenia. On the other hand, if there are two or three leukocytes or even four or five in every field, using the No. 7 objective, the condition cannot be malaria; and if over 70 percent of the leukocytes are neutrophiles (polymorphonuclears) the condition is probably septicemia, with endocarditis.

I have seen a number of such cases in which a diagnosis of malaria was made until a single glance at a stained smear of the blood demonstrated the above-mentioned condition, thereby entirely excluding even the possibility of malaria, although the general clinical signs were strongly indicative of this disease.

Importance of Blood Count for Differential Diagnosis

A similar examination, which requires at most three or four minutes, will decide immediately the differential diagnosis between scarlet-fever and measles, pulmonary tuberculosis and chronic bronchitis, influenza and chronic bronchitis, or influenza and pneumonia, and by this means we can determine at once that a patient presenting symptoms of pneumonia really has typhoid fever, beginning with pneumonic symptoms. Who of us has not been misled, at least for a time, by just such cases?

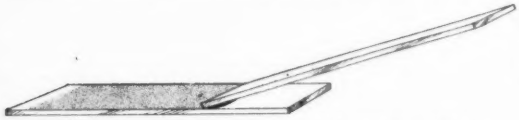
In scarlet-fever, bronchitis and pneumonia we have an increase in the number of leukocytes and an increase in the percentage of neutrophiles; they generally average 85 to 90 percent, the normal being about 70 percent.

Prognostic Significance of Leukocyte-count

The number of leukocytes is of value only for prognosis and in suggestion for treatment. The diagnosis must always rest on a differential count. This gives us additional information; it is a part of the symptom-complex only, but is one of the most reliable objective symptoms. The number of leukocytes bears no relation to the extent of the

lesion, to temperature, etc.; they are only a measure of the resistance of that particular patient to that particular infection.

An increase in the percent of neutrophiles, irrespective of the total number of leukocytes, means either a purulent infection or some infectious disease other than tuberculosis, typhoid fever, measles, malaria, influenza. Given a pathological leukocytosis, a neutrophilia of over 85 percent, we have positive evidence of the presence of pus or gangrene.



Method of making a blood smear with two glass slides

If the neutrophiles are below 75 percent, irrespective of the number of leukocytes, there is no pus, no acute inflammation anywhere in the body.

A patient with clinical symptoms of appendicitis, with 70 percent or less of neutrophiles, has no pus in the appendix, unless he is overcome by a very severe infection and shows clinical symptoms of collapse. This condition is present in about 80 percent of all cases of pneumonia. With a severe infection and no leukocytosis or with a decreasing total number of leukocytes we may expect a fatal issue.

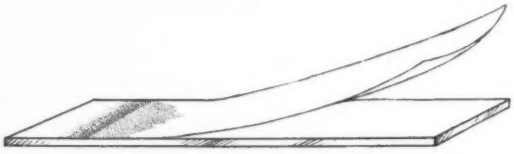
If the number of leukocytes remains high after the crisis in pneumonia, we have a case of delayed resolution, empyema or gangrene. This is always accompanied by a neutrophilia.

The examination of a stained blood smear will enable us to differentiate immediately between a serous and a purulent effusion. In serous effusions the blood is normal; in purulent effusions we have a typical neutrophilia.

Blood Smears and How to Make Them

The preparation of smears is a very simple procedure. The best smears are made upon slides, which must be thoroughly cleansed by breathing upon them and wiping them off with a clean soft linen cloth. The smear is then made as follows: A small drop of blood, usually not much larger than an ordinary pinhead, is drawn from a prick in the ear with a sterile needle, and perfectly fresh, just as it exudes from the puncture, is placed upon the slide near one end. This drop is now spread over the slide as thinly as possible by means of the end-edge of another slide, which is drawn across the first slide, using only a gentle pressure and holding the slides at an acute angle. This produces a smear that in at least some part will present a single layer of corpuscles. Or, the drop of blood may be spread by means of a piece of tissue paper (a cigaret paper answers very well), one end of it being placed upon the drop of blood, which is allowed to spread out as much as possible by capillary attraction, and then by drawing the paper along the slide, leaving in its wake a single layer of corpuscles. In this manner one is less likely to distort the red blood-corpuscles.

The specimen is now fixed by being placed in wood-alcohol for ten or fifteen minutes and then stained with Delafield's hematoxylon for one or two minutes, thoroughly washed in water and counterstained with aqueous eosin. There are no difficulties whatsoever with this method of staining and it gives a very clear picture, all the histological elements being well differentiated.



Method of making a smear with cigaret paper

Staining for Parasites

If we wish to look for parasites, the best method is to stain the smear, directly after it has been dried, by placing it in a jar containing a saturated solution of eosin in wood-alcohol. From this stain it is placed in a saturated solution of methylene-blue in wood-alcohol, without washing between the two stainings. The time required

is twenty seconds for each stain. It is then washed by being immersed in a jar of water and gently moved to and fro. The methylene-blue is washed out by water being allowed to run onto the specimen, as is usually done with ordinary staining. This method gives better results than any of the single eosin-methylene-blue solutions. A complete description of it is given by Hayhurst, in *The Journal of the American Medical Association*, Dec. 4, 1909.

Everyone recognizes that exact methods of diagnosis are essential to success. No continuous success can depend upon guesswork. Diagnosis is as essential to treatment as treatment is to cure.

Importance of Blood Examinations

Additional facts or diagnostic points in many obscure conditions are often obtainable only through an examination of the blood, and these facts often determine the weight of evidence for one or the other of two possible conditions. Here, as nowhere else in medicine, are negative findings of great value. The blood is practically the only tissue that can be easily studied during life, and it reflects the changes of all other tissues because of its intimate association with them.

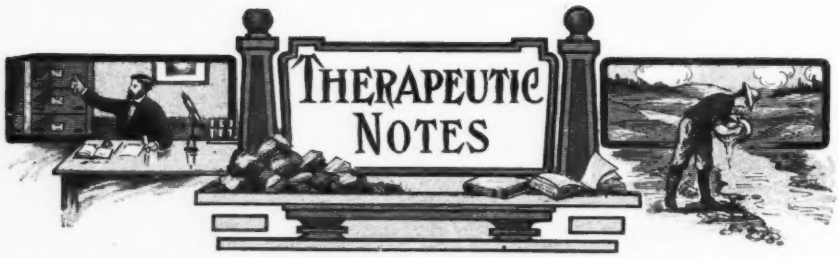
Surprising results are often obtained when least expected, yet we hear on every hand the complaint of the physician that he is too busy to make blood examinations. This is often true, but the successful busy man has someone else, who makes a specialty of blood examinations, do it for him. As a proof of this, the best men demand of the hospitals to which they take their patients that a properly equipped and supervised laboratory be maintained, and they make use of its aid in diagnosis at every opportunity. Other good doctors should have these facilities.

The number of physicians who use only the stethoscope and thermometer is becoming rapidly fewer; yet there remains an enormous number of those who examine the urine, or even a few who examine the sputum and stomach-contents in appropriate cases, and who yet neglect the examination of the most important of the body-tissues—the blood.

Growing Old

By GEORGE F. BUTLER, M. D.

AS we grow old we need to know that we shall remain young if we keep the heart young. Do not imagine because you are growing old, that you must fold away the quick appreciations and impulses of youth with your own youthful garments. Don't think because you are a man of business, or a sedate matron, that enthusiasm is out of character. There never was a forest so dark, or an autumn so late, that the sunshine could not filter through and change the gloom to vague, sweet twilight. There should never be a heart grown too worldly or too old to forget to worship beauty and loveliness wherever found, whether in the evanescent bloom of a sunset cloud, or in the spirit charm of a perfect character.—From "Treasures of Truth."



WHY HYDROBROMIDES?

The hydrobromides are especially useful for their calmant and depressomotor powers, said Burggraeve. Morphine hydrobromide is a powerful sedative of the lancinating pains of serous inflammations, meningites, pleurisies, pericardites and endocardites. Give a milligram every quarter hour till relief. Cicutine hydrobromide calms the lancinating pains of cancer; given with strychnine and hyoscyamine it stops painful spasms of stomach, bladder or uterus.

ACONITINE CURES TOOTHACHE

Tauplain writes of a pregnant woman who suffered from dental neuralgia, giving her no respite, day nor night. She was given aconitine, two granules every half hour, to be stopped when the tingling began. A few doses stopped pains that had endured three weeks without intermission. The pain returned two days later, when aconitine was again given. By checking hyperesthesia, as much nervous as vascular, this remedy usually arrests humid caries or changes it to the dry form.

NOISES IN THE EAR

A patient of Girard's had suffered for ten years with various annoying sounds in his one serviceable ear, ringing, rushing, hissing, etc., with progressive diminution of hearing. Despite electric and other treatment by Mèniére, Villeroux, Miot and even Duchene, the affection persisted. "Then I thought of the active principles, from which I well know one need not ask miracles, but to which one can apply—I know by experience—in cases reputed to be incurable." Burggraeve himself suffered from a similar malady, finding no cure but relief from the use of strychnine hypophosphite, aconitine and digitalin, three or four granules each at bedtime. The malady at least did not increase.

The value of pilocarpine in such cases was unknown to Burggraeve. A full dose at bedtime, a centigram hypodermically, for three successive nights of each week for a month, has proved more beneficial than any other treatment.

TREATMENT OF DIPHTHERIA

After discussing the unsatisfactory results obtained so far from the use of the antidiphtheritic serum, Dr. Robert Tissot (*La Dosimetrie*, November, 1909) says that the serum acts only upon the diphtheritic toxins in the body without reference to the intoxicated organism, which must nevertheless be aided and assisted in its struggle in the reaction which it suffers under the use of the serum, and especially in its efforts at (tissue?) repair. The diphtheritic organism is ill, and it must struggle against its enemy before it can begin to recuperate its forces and to restore its intoxicated biogenic molecules. The organism is not only the soldier which defends the fortress. It is the fortress itself. We have here the primal truth which we cannot neglect without sin.

It is therefore necessary not only to kill the microbes which produce the toxins and to neutralize these toxins by calcium sulphide, adding if we wish, or better, if we can, the serum; but we must also sustain the heart by digitalin and strychnine so that

we may supply the circulation for the entire body with healing blood-plasma and the cells which it carries—cells which produce antibodies.

We must also increase the tension and the amount of the nervous force by remedies which act as vasodilators, especially to kidneys and heart, and thus supply these important organs with an increased amount of blood. Dr. Tissot claims that this plan of treatment is far superior to the exclusive serotherapy in being more complete and effective.

ALBUMINURIC AMAUROSIS

Burggraeve says that essential albuminuria or analbumose, the disappearance of albumin from the blood, occurs because it is not combined with the salts, especially sodium chloride, and because the tissues lack tone and allow the albumin to escape.

For this iron is useful, especially the chloride; also strychnine arsenate, which is useful for neuralgic or eclamptic accidents, since these are due to infiltration of the nervous tissues. Albuminuric retinitis may occur instantaneously and disappear as suddenly. Three cases are described, all recovering under the use of salines, strychnine and phosphoric acid.

PSEUDO-TUBERCULOSIS AND PRE-TUBERCULOSIS OF WOMEN

Dr. Géorge Petit, in a communication to *La Dosimétrie* (1909; No. 11) says that often women show all appearances of pulmonary tuberculosis, even to tubercle bacilli in the sputum, and that attention to a coexisting metritis promptly leads to recovery. He thinks that these patients have a more tuberculous bacillosis (Landouzy) than an actual tuberculosis, to which they are, however, inclined. In all cases observed the author noted a decided chlorosis or chloranemia. In spite of Trousseau's warning to the contrary he considers iron indicated. His treatment is as follows:

Give before each meal, strychnine arsenate, 1 granule; quassin, 2 granules; iron arsenate, 2 granules. The iron preparations are properly changed, from time to time, the phosphate, lactate, valerianate being substituted for the arsenate. For a general tonic, tannic acid, 0.10 to 0.15 centigram is of use. The author has seen good results from injections of artificial serum. For nervous complications, monobromated camphor, for neuralgic and visceral pain, hyoscyamine or morphine hydrochloride are indicated.

MORPHINE ADDICTION AND SPARTEINE SULPHATE

In a contribution to *La Dosimétrie* (1909, No. 11), Dr. H. Vigouroux considers the various methods of treatment for morphine addiction, of which that of Levinstein, involving the sudden withdrawal of the drug, has the disadvantage of being brutal and causing intense suffering, while the gradual withdrawal, after Erlenmeyer, and the slow method require undue periods of time. The method of substituting some other drug in place of the morphine, such as cocaine or ether, tends to add another addiction to the morphinomania.

Dr. Vigouroux has obtained excellent results by diminishing progressively the dose of morphine, and adding increasing doses of the sulphate of sparteine, which although in no manner a curative agent in the addiction serves as a means of combating the physiological misery caused by the suppression of the morphine. Sparteine acts as a direct heart tonic. It not only increases the contractile energy of the heart but subjectively tends thereby to encourage the patient, and, as Dr. Guimbail expresses it, "to put new heart into him."

The author cites the case of a young physician, who by this method successfully was cured of his addiction in twenty days (during the last two weeks of which time he had taken no morphine), after two unsuccessful courses of treatment by other methods. Moreover, he had, for the last five days, been able to take walks of an hour and a half to two hours without any fatigue. [Among the heart tonics which are currently prescribed,

sparteine is perhaps unduly neglected. Dr. Vigouroux's note suggests an important use for this reliable cardiac tonic in an affliction which is difficult to treat as it tends to relapse.—ED.]

THE OXYGEN-BATH

Friedrich Grosse, in *The Practitioner* for September, 1909, describes an adaptation of Sarason's ozet-bath, which he calls the perogen-bath and in which oxygen is developed in the bathing water by a chemical process. The oxygen is produced by the action of manganese borate upon sodium perborate added to the water, which should be a little below the temperature of the blood. The oxygen-bath usually is given as a full bath, but other forms, e. g., hip-baths, are also recommended. The patient should stay in the water from fifteen to twenty and even thirty minutes.

The principal action of the oxygen-bath is sedative, as shown by its quieting effect on pulse, respiration, and blood pressure. This suggests as indications insomina and other nervous conditions, especially of hysterical nature. Grosse also emphasizes the possible suggestive effect of the baths. The only contraindication for the oxygen-baths is in conditions associated with a low blood pressure.

This is a promising remedy, proceeding along somewhat novel lines, and is certainly worthy of careful clinical investigation. It is marketed by Morgenstern & Co., 24 Cliff St New York City.

TREATING A COLD

Claude Bernard found that on paralyzing the skin and the kidneys in animals a typic fever came on, ending in death. A cold should be treated by the use of laxative salines, fresh water in abundance, fresh air, active exercise, sponge-baths, dry rubbing, everything that brings the blood to the surface; and against the fever, the sedatives such as aconitine, veratrine, digitalin, codeine, caffeine, atropine, hyoscyamine, according to the symptoms—cough, headache, spasm, insomnia, etc.

Burggraeve took cold—voice hoarse, constriction of throat, urine red and scanty, fever, with irregular accesses of cold and heat, head burning, heavy, suborbital headache; near evening marked increase and general lassitude. He took one granule each of aconitine, veratrine, digitalin, narceine and caffeine. The aconitine and veratrine soon caused slight nausea or antiperistalsis of the esophagus and pharynx, stopping at the throat; digitalin only showed its effects next morning in diuresis and vesical pressure; narceine and caffeine produced a calm night and dissipated the headache. In the morning he was perfectly well, the cold having disappeared completely.

Lemarchand, going into a damp cellar on a very hot day, felt himself catching cold, his tonsils swelling. He at once took a granule of strychnine arsenate, and in 15 minutes one of phosphoric acid. Two hours later he was perfectly well.

A CASE OF INDIGESTION

A boy of fourteen suffered for fifteen months from intense migraines, coming at evening and inducing heavy sleep, waking with nausea, vomiting twenty-four to forty-eight hours, with several days' intermission, not of equal duration; the crises were coming more frequently and lasted longer. The child was very feeble and susceptible to cold.

Brucine, hyoscyamine and quassin, three granules each, were given at each meal, with an exclusive milk diet. At the end of eight days the child was so much improved that he was allowed free diet, and the doses reduced to two granules of each. No further trouble was experienced.—*Beugnies Corneau.*

CALCIUM PHOSPHATE IN RICKETS

Droixhe says that while codliver oil does good for those who can take it, it is not a specific. Calcium phosphate seems more worthy of this title. Piorry urged it warmly, giving 5.0 to 10.0 Grams daily. Burg-

graeve employed it in the form of eggshells, dried and powdered. Droixhe employed a wine containing this salt, with iron arsenate and strychnine hypophosphite. DeGoes gave calcium phosphate in granules, with charcoal if acidity was present. Salt is a necessity, sugar very injurious.

TUBERCULOSIS IN INFANTS

Dr. Barbier calls attention, in the *Gazette des Hopitaux*, to the frequency with which tuberculosis occurs in nurslings, and which is far greater than is generally admitted. He found that during the first year of life tuberculosis was the cause of death in from 20 to 30 of 100 deaths in children up to one year old. In these small patients the disease may simulate simple inanition, and is often therefore overlooked, especially in the subacute forms. The acute form of tuberculosis in infants may occur as a bacillemia, as acute miliary meningitis, or bronchopneumonia. Aside from syphilis, tuberculosis is one of the most important causes of infant mortality.

CREOSOTE IN PULMONARY TUBERCULOSIS

Dr. Beverley Robinson, New York (*Medical Record*, Nov. 20, 1909), again insists upon the importance of creosote, used internally and by inhalation, in pulmonary tuberculosis, claiming that we have absolutely no medical treatment at all equal to the creosote treatment in that disease. Dr. Robinson apparently does not approve of sanatoria, since only a comparatively small number of consumptives can be benefited by these, and maintains that by the treatment advocated by him many patients can be saved who otherwise would die.

We do not wish to claim that creosote is valueless in pulmonary tuberculosis, or for that matter in any disease requiring antiseptic treatment, but we must assert that this drug is not a sufficiently efficient antiseptic to antagonize the tubercle bacillus and that the results obtained with it in the large clinics abroad and this country have not demonstrated any great superiority over other means of treatment. True, we have no strictly medical treatment for this malady, as little as we have any for most diseases, but we possess abundant means to treat the patients, and thus incidentally to influence their diseases.

The question concerning the merits and demerits of sanatorium treatment of pulmonary consumption is still *sub judice*, but enough has been accomplished in the last twenty years to demonstrate the enormous value of sanatoria not only for the individual patients but for those coming in contact with them after their discharge, through the education and training in matters hygienic, which patients receive in the institutions. The question is a large one and must be discussed some other time at greater length.

AN OBSERVATION ON PELLAGRA

In *The Medical World* for January, J. W. Torbett records an exceedingly important observation on pellagra. He treated four cases. These showed very offensive stools melancholy and diarrhea. When the bowels were checked the patient was worse, with nervous symptoms. He employed the sulphocarbolates of sodium and zinc, with the Morton-wave static current and direct sparks. Two were very advanced cases and he only had them under treatment for a week. Both died. One of the others died in the asylum, with acute mania. The fourth case recovered. We would suggest that if to this treatment were added that by laxatives and colonic flushing with antiseptic solutions, it is possible that the effective treatment of this malady may be developed. If so, Dr. Torbett deserves the credit for having first called attention to it.

STUFFY COLDS

Iodized calcium is a sovereign remedy. One grain every hour until free secretion occurs. Then lengthen the interval controlling the secretion by atropine.—Post. *Medical Summary.*

SURGICAL AND GYNECOLOGICAL NOTES

BY EMORY LANPHEAR, M. D., LL. D.

WANDERING KIDNEY IN WOMEN

Every patient complaining of pelvic symptoms, especially backache and nervousness, should be examined for displaced kidney. If more kidneys were replaced and less pelvic operations done fewer women would be chronic complainers. The condition is a common one; any kidney below the level of the umbilicus is a source of great mischief (even though the patient may not know of its presence); it may be retained in nearly its proper place by an easy and safe operation; and in a few months great relief will follow fixation. Great care must be exercised not to mistake Glenard's disease (of which displacement of the kidney is a prominent symptom) for simple wandering kidney, a mistake often made.

TUMORS OF THE BREAST

It is indeed strange, in view of the fact that 85 percent of all tumors in the breasts of women have been found to be malignant from the beginning and that of the remainder 15 percent at least a half become cancerous if left alone, that the "family doctor" still advises women to "wait and see what it will do." Especially is it fearful because early removal of cancer of the breast gives 85 percent cures and only 15 percent recurrence; whereas, by late operations only 25 percent can be cured.

Every doctor ought to know these things. Yet thousands there are who jeopard the lives of their patients by "hoping" the tumor may prove to be one of the insignificant 15-percent made up of cysts, fibroadenomata mastitis, etc., instead of the fatal 85 percent, and this in the face of the fact that operation is painless, is safe and is curative.

That any kind of a doctor will permit a patient with a tumor (not an ulcerating one) to apply "pastes" or use the x-ray instead of urging operation shows there are moral cowards in our profession, or worse; men who will deliberately treat such a case for the money to be obtained thereby instead of sending the patient to a competent surgeon instantly upon discovery of a suspicious growth. The story of lives thus sacrificed to ignorance or cupidity has never been told; nor can it be, for the details are too nerve-wrecking even for stoics of our profession.

NOCTURNAL EMISSIONS

According to Koenig of Karlsbad three to four Cc. (forty to sixty drops) of fluid extract of hydrastis taken at bedtime will control nocturnal emissions to a marked extent. If they are occurring every night the hydrastis will quickly reduce them to about once a week. If after this tablets of styptol (phthalate of cotarnine) be given for a month at bedtime the irritability will be permanently relieved. The styptol is to be ordered in tablets of one grain, of which one, two or three may be taken as required.

PROTARGOL IN GONORRHEA

Many genitourinary surgeons now prefer protargol to any other agent in the treatment of acute gonorrhea limited to the anterior urethra. The proper method is to irrigate the anterior canal (only) with 300 Cc. of a 1-2 percent solution three times a week. At the same time the patients are instructed to inject 8 Cc. of a 1-2 percent solution four times daily, preceding the injection by urination and holding the solution in the canal for ten minutes. The usual dietary restrictions are to be enforced, and no instruments are to be passed into the canal.

After about four weeks, if the process has not subsided, the Kallman anterior irrigating dilator is employed, with 300 to 450 Cc.

of a 1-3 to 1-2 percent protargol solution. Should the gonococci persist in spite of this treatment, the urethra must be examined with the endoscope and infected glands or lacunæ slit open or destroyed by means of electrolysis. When the posterior urethra also is involved, irrigation of the bladder by the Valentine method is to be employed, with massage of prostate and seminal vesicles through the rectum, followed by another vesical washing with a one-half percent solution.

QUININE FOR LOCAL ANESTHESIA

A local anesthesia as perfect as that obtainable from cocaine, yet possessing the advantages of perfect safety and continuance of effect for 2 or 3 hours may be obtained by the hypodermic injection of the "double salt" of quinine and urea hydrochloride. The only disadvantage is that in strong solution it produces marked thickening and hardening of the tissues into which it is injected, thus interfering in some cases with speedy and perfect union; but this may be overcome by limiting the strength of the solution to one-fourth of one percent, which, however, sometimes fails to give perfect anesthesia. For cases in which delayed union is not objectionable (such as for opening appendical abscesses, cholecystostomies, tonsilectomies, fistula of anus, and operation for empyema, etc.) stronger solutions may be employed with perfect satisfaction. The fibrinous exudate may persist for weeks but is gradually and wholly absorbed in time.

THIOSINAMIN FOR SCARS

By the injection of thiosinamin into cicatricial tissue the fibrous element may sometimes be softened and the stricture or deformity be much lessened. This substance, known as allyl-sulphourea, is insoluble in water but readily makes a 15-percent solution in alcohol. Its use is quite painful. There is, however, a patented derivative obtainable: two molecules of thiosinamin combined with one of sodium salicylate, called fibrolysin, which is easily soluble in water and this causes no pain when introduced into the tissues. Injections of a 15 percent solution are given directly into the fibrous tissue which is to be softened, once in every two weeks if there is great reaction, once or twice a week if the reaction is slight.

After these injections red scars (such as that of a recent burn) become paler, swelled and somewhat flexible, with freer movement over underlying tissues, and if the injections be repeated several times these results become permanent. Microscopic examination shows first a turgescence of the individual tissue-fibers, their outline becoming blurred and indistinct, the nuclei pushed aside and becoming prominent—the whole mass appearing swollen and loose in texture. Fibrolysin is said to exert its action on pathogenic fibrous tissue alone. Recent writers, however, warn against its use where laparotomy scars exist, lest hernia result due to softening of the abdominal scar.

DOES GONORRHEA PROTECT?

The Journal of the American Medical Association contains a note to the effect that Calabrese feels sure that one who has had gonorrhea does not contract syphilis—his idea being that the toxins of the gonococcus cause such tissue changes that the spirochæta pallida cannot thrive in them. Inasmuch as where syphilis has killed its thousands, gonorrhea has slain its tens of thousands, there will probably be few doctors who will advise prophylactic clap. However, Calabrese probably intends to secure immunization to syphilis by the use of some sort of serum derived from Neisser's coccus artificially cultivated.

MYOMATA AND PREGNANCY

Myoma of the uterus complicates 7 cases in every 10,000 labors, occurring especially in primiparae of middle age. In about sixty percent of all cases delivery is spontaneous, with more than the usual tendency to postpartum hemorrhage, and with an unusually high percentage of placenta prævia.

The apparently rapid growth of the tumor during pregnancy generally depends upon edema and change of form rather than upon an actual permanent increase in size. As to treatment: When the tumor lies well above the internal os it may gradually rise out of the pelvis and thus not interfere with delivery, and even deep-seated growths may become displaced. Every patient with myoma of the uterus, however, should be placed in the hospital before delivery, because cesarean section may be imperative, forceps-delivery being just as dangerous as abdominal section even in skilled hands. Often the Porro operation is preferable to the cesarean, the child being delivered from the uterus before the great vessels are ligated.

DISINFECTION OF THE VAGINA

Few gynecologists secure even a moderate degree of cleanness of the vagina in their operative work—chiefly through incomplete work on the part of nurses. Every operation of magnitude should be preceded by thorough scrubbing with soft soap and hot water with a long thin brush which will reach every part of the canal. The mucous membrane should next be dried with gauze, a bivalve speculum being introduced to smooth out the wrinkles and bring the cervix well into view, and then all surfaces are carefully painted with tincture of iodine, the speculum being gradually turned and withdrawn. Finally the vagina should be filled with 65-percent alcohol and then rinsed with a 1 in 2000 bichloride solution.

COMBINED ANESTHESIA

At the recent International Medical Congress, held at Budapest, Prof. Kroenig of Freiberg declared: "It is only by making the use of combinations of anesthetics general that the dangers of anesthesia by inhalation can be reduced to a minimum." This is exactly what advocates of the hyoscine- morphine-cactin combination have been claiming of late—that by two doses of this agent (one given three hours and the other one-half hour before operation) with a few drops of chloroform at the beginning of the work there can be obtained the nearest possible approach to ideal anesthesia. Now that the correctness of the assertion has been vouched for by a German professor, possibly some American "great surgeons" will "sit up and take notice."

TINCTURE OF WHITE SOAP

F. P. Dunnington, Professor of Analytical Chemistry, University of Virginia, in *The Oklahoma Medical News-Journal* for December, 1909, objects to green, or soft, soap for washing up in preparing for operation, as it carries much free alkali which tends to roughen the skin; it has a disagreeable odor; it clings to the skin and cannot be so completely removed that no odor is left. He suggests as a better and cheaper substitute the following:

White soap (Conti's)	Gm. 300
Stronger ammonia	Cc. 25
Alcohol	Cc. 350
Distilled water	Cc. 325

OPERATIVE EPIPLOITIS

After abdominal operations inflammatory masses, erroneously called tumors, may form in the omentum. These usually occur when a part of the omentum has been cut away and are of inflammatory origin. As a rule they do not cause enough trouble to demand secondary abdominal section, but gradually disappear without suppuration. When exposed they are found as solid masses of firm consistence, with smooth or slightly nodular surfaces. Generally the omental inflammation is localized and hence the infected mass may be removed readily, even when its center is filled with pus, as is most likely to be the case when the epiploitis follows operation for pelvic abscess. Non-operative treatment consists of rest in bed, purgation, and local applications of mercurial ointments or kaolin and glycerin. Pain is never prominent.

Colchicum: When Should It Be Given in Gout?

Translated from An Article by Dr. Constant

By E. M. EPSTEIN, A. M., M. D.

THIS question though apparently simple is nevertheless the subject of much discussion. Those who regard the rapid suppression of the patient's pain as the most important indication, and who, moreover, see no danger in this practice, prescribe colchicum at once (Lécorché), but the great majority, with Bouchard, Dieulafoy and Legendre among them, "consider an acute attack of gout [to use the expression in the recent article on gout, "*Des Maladies de la Nutrition*," Richardiére et Sicard, 1907] as a kind of emunctory which is to be respected, and they do not give colchicum before the crisis of relaxation (*detant critique*) had taken place, which is about the fifth or sixth day."

It is clear enough that the great preoccupation of the physician's mind, in the presence of an attack of acute gout, ought not to be not only the relief of pain, but the well-considered care to safeguard the urinary depuration and the functions of the kidneys in all their integrity.

Now then, if this be the fear, that these functions should be compromised, let me demonstrate that this is an unjustified fear, and that colchicum as well as its alkaloid colchicine does not harm the renal gland at all.

First. Does colchicine modify in any way the excretion of uric acid? No! I could cite a hundred analyses in support of my affirmation, which were made in the course of acute attacks of gout where the patients were under the action of colchicine; but as this number would extend this communication to an inordinate length it will suffice to report the analyses of the urine here following, taken the last season in the case of a patient with gout who had taken the night before and also on the next day three granules of colchicine of one milligram each.

Analysis: Urine turbid, consistency thick, color deep-yellow. Odor, *sui generis*. Reaction, acid. Density, 1024. Sediments: abundance of urate of sodium together with some fine brick-red gravel. Uric acid, 1.218 Gram per liter (about fifteen grains to the quart). Urea, 23.69 Gram per liter (about 345 grains to the quart). No albumin. No sugar.

From this analysis it is easily seen that there is no trouble in the eliminative function of the kidneys, since the free uric acid rises here to 1.218 Grams per liter without counting the abundant sediment in the urate debris. On the other hand we see that the quantity of uric acid and of urea and the density (specific gravity) here agree well with what has been many times ascertained by many authors to be the case where colchicum was not employed. Therefore we say that colchicine does not stop the secretion of uric acid.

Second. Does colchicine act unfavorably upon the functions of the kidneys? No!

During an acute attack of gout the quantity of urine generally goes down below the normal, and at times to 1200, 1000 and 800

cubic centimeters (about 300, 250 and 200 drams) in twenty-four hours, while the density increases with the increase of urinary discharge.

Colchicine does not modify in the least the quantity of urine. I have always found a decrease of urine chargeable to the attack of gout itself, oscillating between 1200 and 900 cubic centimeters (about 300 and 225 drams) and very rarely coming down below the last number. Moreover, I never found that colchicine provoked albuminuria.

In a patient, therefore, whose kidneys are in good condition we need not hesitate to give colchicine, even at the beginning of the attack. It is needless to let the patient suffer, from the prolongation of which suffering he will get no benefit, either to help the diathesis itself or for preventing its further development.

I should add, also, that the expectant treatment may be dangerous at times, because when the attack is not checked it may strike some essential organ, as for instance the heart, kidneys, etc.

Moreover, the expectant treatment is impossible in our watering places. In the clear days of summer the patients soon become impatient at their state of isolation, in spite of their comfortable hotels; already exasperated at their pains they are horrified at the possibility of having to be confined for many long weeks. Moreover, he wants to make the cure quickly, for time is limited and business is pressing and he must get out of the painful situation at any cost and as soon as possible.

It is, therefore, for the essential reasons stated above, that I do not hesitate to prescribe colchicine as soon as the attack has declared itself, provided the kidneys are undamaged. I generally begin with three granules (half milligram each) in the morning during two days, very rarely four granules, which I consider as a very high dose, provocative of accentuated digestive troubles. Milk diet. All other treatment is stopped.

One or two days following, judging by the appearance and character of the stools, by the pain the patient is experiencing, by the appearance of the disease, whether spreading or not, I reduce the dose to two granules a day. When the end of the attack becomes apparent by the usual signs, such as the decrease of the edema and the redness, disappearance of pain, urine clearer and more abundant, I reduce the colchicine to one granule a day for two or three days—longer if necessary to prevent a return of the trouble. At the same time I have the patient take again the Vittel water in more abundant quantities, say 800 to 1000 Grams (24 to 32 ounces), in the morning, a quantity which I have very much reduced at the beginning of the attack so as not to increase the arterial tension at the seat of the disease.

[" Vittel is in the Vosges. The springs there contain bicarbonates and sulphates of calcium and magnesium and chlorides of sodium and magnesium. The temperature of the water is 11.2°C. (about 52°F.). Altitude 336 meters. The waters are prescribed for urinary gravel, gout and biliary lithiasis. The waters are marketed."—Translated from the 1907 edition of Littré and Gilbert's "Dictionnaire de Medicine."—THE GLEANER.]

Proceeding in this way I have never met with any accident or vexation.

In other periods of gout, when the elimination of uric acid is less abundant, colchicine ought also to be prescribed from the very beginning of the attack, for while in the longer or shorter intercalary period between an acute attack of gout and the chronic phase of it, which may be called subacute, the quantity of the uric acid excreted reaches at times from eighty to ninety centigrams per liter at the maximum, it never exceeds from fifty-five to sixty centigrams per liter in chronic gout.

It is therefore not alone the elimination of the uric acid which is to be considered by the physician during a period when the gouty diathesis has more advanced, but he must think of the evil action (*retentissement facheux*) which this diathesis may yet have upon the viscera. For it must not be forgotten that the gouty person dies of trouble with his heart or his kidneys, and it is this final fatal term which should be retarded as long as possible, by preserving the organs

against the greater or less violent assaults of gout, repeated or prolonged.

In all this discussion I have had in view only the serious attack of this diathesis. Attacks of less importance, above all those of chronic gout, will do very well under a medication less active but sufficient, such as sodium salicylate, aspirin, etc. For while colchicine renders great services in the pressing and menacing cases it is at the same time a very toxic substance which must not be abused, but used with circumspection and prudence.

Finally, aside from the reservation pointed out at the beginning of this article, so far as the integrity of the kidneys are concerned I wish to add that cardiac or circulation manifestations are not express contraindications against the use of colchicine but in such cases there is need of much caution, close watching and very small doses.

Colchicum can and ought to be given at the beginning of the attack.

I can not speak out too emphatically against the unfortunately too frequent use of the hypodermatic injection of morphine in an attack of gout. This practice ought to be banished forever from therapeutics, since in paralyzing the renal functions morphine not only arrests the elimination of the uric-acid detritus but the patient becomes exposed to severe outbreaks, preparing the way for a rapid attack of the grave forms of gout and above all for the formation of those tophi which abound in and deform a certain class of gouty persons.

[The above article, written by Dr. Constant of Vittel, France, is from the *Revue medicale de l'Est*, published with the author's permission in the *Journal de Medécine de Paris*, of September 25, 1909, and is here translated from the *Revue Therapeutique des Alcaloides* for November, 1909.—THE GLEANER.]

STRYCHNINE VS. BRUCINE

Drs. Dixon and Harvey find (British Pharmaceutical Conference, 1908) by experiments that brucine is about one-eighth as toxic as strychnine, but that the two alkaloids have very different actions. Strychnine acts on the sensory cells of the spinal cord and causes death by asphyxia, the muscles of the chest being locked in convulsions. Brucine causes slight convulsions at first, but this effect passes off quickly and the alkaloid acts then as a narcotic, paralyzing the motor nerves. Brucine resembles curare and conium in its action.—*Medico-Surgical Journal*, Calcutta, 1909.

ONIONS IN PNEUMONIA

Hot onions, according to a French physician, are said to be a "sure cure" for pneumonia. The remedy is as follows: Take six or ten onions, according to size, chop fine, put in a large pan over a fire, then add the same quantity of rye-meal, and vinegar enough to make a thick paste. In the meantime stir thoroughly, letting the mixture simmer for five or ten minutes. Then put it in a cotton bag large enough to cover the lungs and apply to the chest of the patient, as hot as he can bear it. In about ten minutes apply another poultice and continue to repeat. In a few hours the patient is out of danger. This simple remedy has never failed to cure this so-often fatal malady. Usually three or four applications will be sufficient.—*Medico-Surgical Journal*, Calcutta, 1909, p. 8.

TWO CASES OF CURE WITH THIOSINAMIN

Dr. Lavarant says in the *Journal des Sciences Medicales de Lille*, March, 1909, that after having learned the formula and the physiologic effects of thiosinamin he had, in association with Lermoyez, a case of edema of the glottis together with a contracted larynx which was cured with injections of thiosinamin. He also recalls the case of Teleky, that of a young man who suffered from a gastric cicatrix which was ruptured by thiosinamin.

He also reports a case of synotenosis of the left knee cured with thiosinamin, and a case of cicatricial contraction of the larynx of syphilitic origin which was tracheotomized, dilated, and then after injection of thiosina-

min was cured. With the mirror one can see plainly the swelling in the larynx the next day after the injection of the thiosinamin.—Dr. Sagnon, in *La Province Medicale*, 1909.

APROPOS OF APIOL

The new French Codex recognizes officially the crystal apiol, obtained from the seed of parsley. This specification is absolutely regrettable for both French cultivation and industry, for it has been known for a long time that the essence of French parsley contains but a small quantity of this body, and that that parsley is made up on the average of myristicene, which does not differ chemically from apiol except by one methoxyl group, OCH_3, whose pharmacodynamic action is sensibly analogous. The fatal consequence of this fact is not sufficiently attended to. We have become tributary for this product to Germany. The price of crystallized apiol has been increased and there is a lack of it, even in the Paris market. As a consequence capsules of apiol are manufactured from parsley butter, which presents a crystalline aspect, due to the presence of apein, which is a glucoside of parsley, and these capsules have occasioned grave accidents.—Chevalier, in *La Medicine Orientale*, 1909.

SIDE-ACTIONS OF NEW REMEDIES
(Continued)

Mesotan.—There was noticed irritation of the skin in the form of inflammation. The severe burning and itching often resulting can be avoided by rubbing it in cautiously, and especially by mixing the remedy with vaseline. If mesotan and mesotan-vaseline are kept for a long time decomposition products may result and give rise to various forms of skin irritation.

Phenacetin.—Very seldom have poisonous effects appeared from this remedy, but such as have were exanthemata, hemoglobinuria, hemorrhagic nephritis, dizziness, cyanosis, and sometimes ulcerations on the lower extremities.

Phenocoll Hydrochloride.—At times there results nausea and vomiting. For children this remedy should be very cautiously used on account of danger from collapse from over-dosage.

Pyramidon.—Among the side-effects of this remedy noticed were urticaria-like exanthemata, fatigue, a sense of oppression, nausea, tendency to vomit, vomiting, loss of appetite, strong sweats, cyanosis, cadaverous appearance, small pulse; in one instance death in collapse occurred. The urine sometimes is colored red from dimethylamidoantipyrin.

Rheumasol.—This produces moderate local irritation-phenomena and desquamation, hence must not be used on tender, hyperesthetic skins.

Rheumatin.—At times this occasions tinnitus aurium and it has produced deafness, though rarely.

Salimenthol.—Eructations at times occur when administered internally.

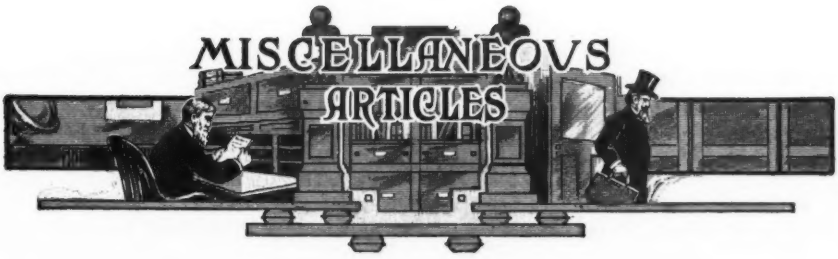
Salipyrin.—Side-effects of this are: periostitis of the scapula, due to the irritation of the vasodilator nervous system, also exanthemata, burning in the stomach (heartburn), dulness of hearing, tinnitus, difficulty of deglutition, thirst and dryness of the tongue.

Saloquinine.—The salicylic component of this remedy sometimes causes tinnitus aurium.

Salocresol.—The odor becomes disagreeably noticeable.

Spirosal.—The side-effects of this remedy noticed were: a feeling of burning after it was rubbed in, severe irritation of the skin with redness and painfulness; tinnitus, vertigo.

Under this group of remedies, novaspirin seems to displace the salipyrin and aspirin, especially in the treatment of influenza, while pyramidon as an antifebrile, especially in small doses, has great value in pulmonary phthisis and perhaps in typhus also. These remedies which are introduced through the skin are growing in popularity because it pleases the common people, as not disturbing digestion, to have their medicine administered externally.



Some Mistakes of the Doctors

IT has occurred to me many times, in the past two years, that the practice of medicine is undergoing a complete radical change. That the public in general is learning to depend less and less upon the doctor. That every new fad is eagerly followed by many whom we have always looked upon as intelligent. We are often pained and shocked that many of our good patients take to Christian science, osteopathy, Emmanuel movement, physical culture, Fletcherism, viavi, shoestore arch-supporters, drugstore rectal dilators, peddlers' vibrators, two-dollar electric batteries and ten-dollar electric belts, and the thousand and one advertised fakes exploited by our own newspapers as well as the slick agents who first visit the doctor and later the dear public, selling to the aforesaid dear public for forty percent less than to the doctor.

We find in the homes of our patients pretty nearly all the things we have used in our practice, and some of the things we had thought of using sometime but haven't got around to it.

We find that many of our patients whom we have been treating for rheumatism are using some form of arch-supporters, many times to our chagrin, with comfort and benefit, especially if the supporter happens to fit. We find that some of our patients we have treated for headache for years have suddenly been cured by securing properly fitting glasses, and who were put on the right track, not by the doctor, but by some friend who had found similar relief.

Some of our long-standing rectal cases that we have failed to relieve through carelessness on our part (or lack of interest) have been cured by a set of rectal dilators furnished by the druggist.

I once listened to a very interesting lecture by a celebrated lawyer on "some mistakes of Moses," and it has occurred to me that perhaps it might be of profit to us all to mention some of the mistakes of doctors.

It is a mistake to give medicine for the relief of headache without impressing the fact upon the patient that a headache is only a symptom, that it is probably curable, and that with his cooperation you can almost certainly cure it. Probably more than fifty percent of the headaches are due to eye-strain, many are due to constipation, indigestion, and to faulty metabolism.

It is a mistake to allow a patient suffering from rheumatism of the lower extremities to go without a thorough examination of the feet, especially the arches. It is a mistake to treat all cases of chronic constipation without an examination of the rectum for a tight sphincter, hemorrhoids or other rectal disease that may be a causative factor.

It is a mistake to laugh at the socalled "growing pains" of children, for they are nearly always rheumatic.

It is a mistake to advise whipping a child for bed-wetting, for it may be due to some irritation of the rectum or bladder, or an abnormal prepuce which needs dilating or removal.

It is a mistake to tell a woman that the small growth in the breast she shows you is only an enlarged gland, in six months it may be too late to save the woman's life by an operation for cancer.

It is a mistake to allow your medical journals or books to remain on the waiting-room table.

It is a mistake to give a patient a prescription for anything for the relief of pain—with all due respect for the pharmacist.

I don't believe we all pay attention enough to our chronic cases. We lose interest in many cases that we might profitably study up, profitably both to the patient and to ourselves.

Every patient that goes to the doctor believes he is ill. They may make light of it at the time, but if they were not a little worried or annoyed they would not come, so it is up to us to do something for them, something they will appreciate. It is our duty to keep them away from the charlatan and the quack, whether their ailments are fancied or real.

I must admit that the average patient wants medicine, and feels cheated if we do not give it. But isn't it possible for us, with our superior knowledge and judgment, gradually to educate our patients so that in time they will appreciate that our advice, after all, in very many cases, is much better than drugs—that advice regarding hygiene, proper habits as to eating and sleeping, the immense importance of fresh air at all times. What to you may seem trivial, may appear very much magnified to a nervous patient. I am speaking from my own experience.

All these mistakes I have made and many more. It is up to the doctor to keep pace with the times. Many patients drift into the habit of following the fads in medicine because their physician does not appear to take the interest in their case that they feel entitled to. LEROY A. NEWTON.

Greenfield, Mass.

BRYONIN

The once popular, well-tried remedy of the old school, bryonia alba (bryonia dioica), is little remembered at the present time, other newer and perhaps less useful drugs holding the attention of the fickle medical profession. The new attracts, we shelve the old-fashioned homely remedies of our forefathers with the old-fashioned ideas of treatment, forgetting the good they did with the crude implements at their command, in our haste to accept the latest dicta of science.

Bryonia was one of their good things and within its indications still deserves the well-earned esteem in which it was formerly heid.

We must look to the eclectics for any light on its field of action and we find it is a remedy of great repute with them.

Its cardinal characteristics are pain, stitching, sticking, cutting pains worse on motion, wherever found; a hard vibratile pulse (Scudder), and cerebral irritation, manifested by delirium of the aggressive type, harping on business affairs, patient imagines he is away from home, is anxious to return and is restless and hard to control.

With these indications, bryonia acts wonderfully well and speedily. It is only necessary to have a dependable preparation to obtain very decided results. On account of the usual instability of the galenic preparations the glucoside bryonin is to be preferred. It is colorless, bitter, soluble in water and alcohol, and may be dispensed in solution if preferred, or in the granule form containing 1 milligram. In acute maladies a granule may be given every fifteen minutes until relief or until its physiological action is obtained—irritation of stomach, with looseness of bowels.

Bryonin has a great field of action in lung maladies with the accompanying indications enumerated above. The sharp, cutting pain, with short, sharp cough, and worse on motion, pulse hard, frequent, vibratile, high fever, mental disturbance.

In pleurisy during the acute stage, with the sharp, cutting pain, it is very effective, and no less so during the stage of effusion and for the chronic pain so often resulting, due to pleuritic adhesions. It is useful in laryngitis with sharp pains and dry rasping irritative cough; in hepatic disorders with jaundice, high-colored urine, pain of the dis-

tinctive type; in acute and chronic rheumatism; in pericarditis, gastritis, peritonitis, colics, appendicitis, congestive headache.

In the violent delirium of typhoid fever, when the patient does not realize he is at home but is struggling to reach home and worries about his business affairs, is hard to control, bryonin is one of the most potent remedies we have, and is especially active if the alimentary tract has been kept clean and empty.

I recall several cases showing the positive indications, and in all this one remedy given to effect acted most wonderfully.

An old lady taken suddenly ill at her home with a severe attack of pneumonia complained, after the acute stage had passed, of occasional sharp, cutting pains in the affected lung. The pulse remained hard and frequent; her one desire was to be taken home, where she could superintend her household affairs. All other medication was stopped, bryonin given, 1 milligram every hour, and in eighteen hours all the symptoms were removed.

A young man, married, in debt, developed pneumonia and complained bitterly of the sharp pain in his chest, of business worries, talked constantly, was hard to control, would get out of bed if left alone a moment in his desire to go home. Bryonin acted as happily in this case.

A middle-aged man of 47, never sick in his life, developed sciatica while at work in a ditch, complicated with obstipation and autotoxemia. In the course of his disorder the symptoms indicative of bryonin arose and were met promptly by this remedy. I have given it to patients complaining of pleuritic stitch remaining after an attack of pleurisy, in rheumatism with stinging pain in the joints, in the delirium of typhoid fever, and it has acted well.

Bryonin is well worth detailed study. It is a specific remedy when given within its limitations.

R. J. SMITH.

Collinston, Utah.

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[We clip this article from the November number of that excellent journal, *The Denver Medical Times*, from the Utah section, in which we are pleased to see Dr. Smith's name recorded as one of the "Editorial Collaborators." By the way, Brethren of the Great West, do you know what a fine journal Stimson is getting out? Better send for a copy, or better still, send a dollar for a whole year's subscription.—ED.]

AN ANSWER TO DR. E. GARD EDWARDS ON "THE PAYMENT OF COMMISSIONS"

In reading the article in the November issue (p. 1185), "The Payment of Commissions," by Dr. Edwards, I was surprised at his statement that the subject was very little discussed by the profession; and then, again, I could not blame anyone for avoiding the subject, as its discussion would not alter matters but would only open the "stink-pot" and emit more of its disagreeable odors; but if Dr. Edwards will look through THE AMERICAN JOURNAL OF CLINICAL MEDICINE of about two years ago he will find the subject very freely agitated or discussed, with the physicians equally divided as to whether it is right or wrong to accept a commission or division of the fee. Personally I see no objection to accepting a fee from the surgeon if it is an honorable one, paid out of his legal fee charged for his services, this being a personal matter between himself and his colleagues.

In the above case I cannot see any difference between a commission by the physician or a commission in a commercial line, for if the patient had not been referred to him by the party of the first part he would not have had the patient under his advice and care; and as to the statement that most of the physicians send their patients to the one who gives the larger fee-division, this is absolutely unbelievable, for I can not conceive that any physician, unless he be a miserable, heartless scamp, would stoop so low and would think so little of the welfare of his patient as to sacrifice him or her into incompetent hands, for he knows that if the patient is successfully operated upon and recovers it will be to his own advantage, and if to the contrary, will be more or less of a

detriment to him, as unsuccessful treatment does not bring business.

From personal knowledge I can say that it is not the party of the first part that is seeking a division of the fee, but it is the party of the second part that makes the proposition, in the majority of cases, so as to get the doctor to send patients to him for special or surgical treatment; and with all kinds of competition on hand it is really a hard lot for many physicians to make both ends meet. Verily, one-half of the profession do not know how the other half live.

I will say this: until every physician in the world is so competent as to do all his own work, both medical and surgical, so that he need not seek for one who is more competent than himself, so long will the fee division go on; and so long as the hand of fellowship is denied to the medical practicians of all schools, such as the regulars, homeopaths and eclectics, not forgetting the alkaloidists, so as to unite for the common good of all concerned; and so long as hospitals and free dispensaries treat the larger number of patients who can well afford to pay free of charge; and so long as the hospitals are controlled by a certain few, especially the municipal hospitals that are controlled by the political party in power, and the members of the staff of these are appointed irrespective of ability and worth, provided he is a good politician and vote-getter himself; and so long as a large number of physicians on hospital staffs are on the pay-roll of the large corporations of the land, to intimidate people hurt in their employ into signing a quit-claim or release for a small amount of money while they are in agony and unable to understand the nature of the paper they are signing (which I can prove); so long as members of the profession will contradict each other upon the witness stand, whether they are right or wrong, and wilfully tell falsehoods for the sake of the money involved, and especially when an expert on insanity will knowingly make false statements upon the witness stand and claim a person to be insane when he knows he is not insane (this I can also prove); and so long as the hospitals do not open up an operating room and beds so that the physicians not on the staff may bring their patients and operate upon them themselves if they are competent to do so (and I know that there are many physicians not connected with any hospital that are far more able to do surgical work than those on the staff of some hospitals),—just so long as all these things are not remedied will the division of fees go on.

Therefore, my brothers, let us stop finding fault with our colleagues for accepting and giving commissions and try to make conditions better by uniting all schools of medicine and fight hand in hand for the good of all concerned.

Let us endeavor

1. To get the trustees of the hospitals, especially city hospitals, to open up an operating room so that all who desire may take their patients there and do their own operations if they are competent to do them, the hospital only to charge the actual cost of material for the use of the operating room and to charge a fair price for room or bed in which the patient is placed, including fees for nurses according to the number required and the ability of the patient to pay.

2. To regulate free medical and surgical treatment to the poor who can furnish evidence of their inability to pay, thus forcing those able to pay to seek advice from a regularly practising physician, bringing the fee to him who is entitled to it.

3. Let us fight the common enemy, the quack charlatan, therapeutic nihilist and others who are degrading our noble profession.

4. Let us all unite and make one great fight in conjunction with all the medical associations of the land to get an act passed by Congress for a federal examination board so that when you hold a federal certificate you may practise anywhere in the United States, thus abolishing the state boards of examiners.

5. Let us see to it that all those practising midwifery are regular licensed physicians, thereby doing away with the midwives, most of whom being illiterate and many filthy, dirty and incompetent, doing

much damage and bringing misery to many mothers, such as septicemia, ruptured perineum and uterus, not counting the many other ills due to their incompetence, and, above all, taking the fee which belongs to the graduated physician, thereby depriving him of his just dues and robbing him of a living and the necessary means of educating and bringing up his family.

Yes, my dear brothers, these are the things we must strive for. Only then will it be possible to do away with fee-splitting when the doctor is able to make a living, as then the thousands of patients who now are treated free will be compelled to seek advice for which they must pay. Even then, if a surgical patient is referred to a specialist, it would be far better for that specialist to have the doctor who referred the case assist him in the operation and pay him accordingly, and if necessary have him look after the patient in conjunction with himself.

6. See to it that all physicians unite against all cheap lodge-work, especially the sick-benefit organizations where the physician gets from 50 cents to $1.00 per year for each member for medical attendance, ofttimes for the whole family. This practice is degrading the profession and in these days of unions we should also unite against this evil. No physician who accepts this kind of work can and will do justice, the consequence being that there will be dissatisfaction in the association against the doctor and he will lose the confidence of the members, who split into factions, a few being with him, many against him, the result being a few friends and many enemies; all this sure to react to his own disadvantage. It is true that a few hundred a year is nice money for a young beginner, but it never pays in the end—take this from me. I had many lodges in my younger days, but have always regretted ever having had anything to do with them, as it only degrades one in the eyes of the better class of people and is by no means dignifying.

7. Last, but not least, let us speak well of each other and uphold each other whenever and wherever we can. Let us not speak evil of our brother physician. If you cannot speak well of him say nothing, for no one takes more notice of such than the layman, and if the physician happens to be his friend it will surely react upon yourself, for there is no one, no matter how weak his reputation, who has not his friends. Therefore speak about others as you would have them speak about you—and here I will say that there never was anything more true than the old German proverb:

Reden ist silber,
Schweigen ist gold,

which is to say, "speech is silver, but silence is gold."

W. F. RADUE.

Union Hill, N. J.

A FATAL CASE OF ACUTE POISONING BY OIL OF WINTERGREEN

The subject of this accident was a boy two years of age. The child was considered to be delicate, but there was no history of illness. The father is of marked nervous temperament; family history otherwise negative. Securing an ounce-bottle, about three-quarters full, of oil of wintergreen, the child drank some—amount difficult to estimate, but about 1-2 ounce was taken from the bottle, and some of this being spilled on table, clothes, hands and face. He complained of pain in mouth and eyes (the latter were rubbed with the fingers). His stomach evacuated in about fifteen minutes. Was given milk and white of egg. In an hour he was easy, played as usual, then went to bed. He slept until 10 o'clock, when, waking up, he asked for drink, which request was repeated more or less continuously for two hours.

I saw the child at this time. No evidence of poisining, except quickened and deepened respiration of 40 per minute; lips and tongue showed blistering and corrosive irritation; free urination; voluntary bowel movement showed no signs of the oil; temperature and heart action normal. I gave hyoscyamine, 1-125 grain, divided into 10 doses, one dose every fifteen minutes, to quiet the nervous condition, which however was not marked.

At 2 a. m. I found him in marked tonic spasm; temperature 95° F.; respiration 50; marked dilation of pupils; fixed, staring eyes; delirium; total loss of consciousness. When immersed in a hot bath, the spasm relaxed. A high enema gave a large evacuation with wintergreen odor. There was free urination, but no odor nor change in color. Heart very rapid, could not be counted, weak, and showed marked irritation. I gave sparteine, 1-2 grain, hypodermically, which steadied and slowed the heart for about fifteen minutes, but the effect soon wore off and a second spasm developed, this being followed by a third and fourth spasm, ending in death at 3:20 a. m., ten hours after swallowing the wintergreen oil. Rigor mortis was very marked a few minutes after death. Cheeks, lips and tongue appeared as if burned by phenol. Autopsy was not permitted.

The remnant of the oil of wintergreen gave a marked odor of methyl- (wood-) alcohol. It was purchased some three years ago and suggests adulteration of the oil with methyl-alcohol, or else deterioration of the oil in that period. Of the half ounce of oil removed from the bottle the amount swallowed can not be estimated.

From the very limited references at my command, I can not find records of similar, fatal or even toxic, cases, except one cited by Potter, in which one ounce of spirit of gaultheria caused death by violent gastritis. Reports of similar cases are solicited.

H. C. DODGE.

Steamboat Springs, Col.

A "SURE" CURE FOR INSOMNIA

Yesterday, says *Success*, a friend who had heard that I sometimes suffered from insomnia told me of a sure cure. "Eat a quart of peanuts and drink two or three glasses of milk before going to bed," said he, "and I'll warrant you'll be asleep within half an hour."

I did as he suggested, and now, for the benefit of others who may be afflicted with insomnia, I feel it to be my duty to report what happened, so far as I am able this morning to recall the details. First let me say, my friend was right. I did go to sleep very soon after my retirement. Then a friend with his head under his arm came along and asked me if I wanted to buy his feet. I was negotiating with him, when the dragon on which I was riding slipped out of his skin and left me floating in mid-air. While I was considering how to get down, a bull with two heads peered over the edge of the well and said he would haul me up if I would first climb up and rig a windlass for him.

So, as I was sliding down the mountain-side, the brakeman came in, and I asked him when the train would reach my station. "We passed your station four hundred and fifty years ago," he said, calmly folding up the train and slipping it into his vest pocket. At this juncture the clown bounded into the ring and pulled the center pole out of the ground, lifting the tent and all the people in it up, while I stood on the earth below watching myself go out of sight among the clouds that floated on the ocean of time.

Then I came to and found that I had been asleep almost three and one-half minutes.

HOW TO LIVE TO BE AS OLD AS METHUSELAH

This may possibly be my last communication on medical topics, and I send it to you because you will see to it that I am accredited with its introduction. For the past forty years I have written much original matter for publication in medical journals and no credit in after-years was given me, but to others who stole my thunder.

I was the first person to write about the anesthetic properties of salt sea-water of a specific gravity of 1020 or more. A limb can be amputated while under water (sea-water) without pain. Stab wounds are not felt when made under salt water, and thousands of other uses may be made of this God-given and cheapest of all medicinal remedies. Injected hypodermically it relieves pain quickly.

The matter I am about to introduce is the toad-frog, found jumping over the fields in summer time. It is a well-proven fact that

these frogs have been known to live centuries. One was found 300 feet below the surface in a mine in Butte, Mont., the property of Charles Van Zandt. The workmen were blasting a huge fragment of rock with sledges when it fell apart and in the center it was hollow and damp, and in that center this batrachian was found. It was named "Methuselah," and lived a long while after it was taken from the rock. It might have been there more than one thousand years.

Now, what I propose is, that the common toad-frog be used as medicine. Take the eyes, brain, blood, heart of one toad, and after preparing it similarly to other animal products without heat enough to destroy its properties, mix it thoroughly with milk-sugar, 4 parts, charcoal, 1 part, and make into 1000 5-grain tablets, giving one tablet three times a day until results are obtained.

This may be used in paralysis, locomotor ataxia, organic heart disease, loss of vision from old age, baldheadedness, tuberculosis, cancer, syphilis, leprosy, etc. But the object is to make an old man young and keep him young a century. One of the first evidences of this rejuvenation will be the changing of white or gray hair to the color of youth, and the restoration of normal conditions in those physiologically dead, sexually.

J. ZACHARY TAYLOR.

Baltimore, Md.

[Dr. Taylor's suggestion is certainly novel. There are several attractive features about it. The idea is quite in line with the trend of modern medical thought, for it is just as likely that a serum from the death-defying frog would render the user immune against death as that other recently introduced sera should do what they are expected to. Hail to the "*tabellæ longæ vitæ*."

As to the feasibility—why not? Who has tried the frog-toad death-annihilating serum? And until tried, who can say it is worthless? Who dares to say anything is impossible, *a priori?*

Our principal objection is not against the possible or probable efficacy of the proposed serum, but against its desirability. Who wants to make old men feel young? They've had their chances. If they did not embrace their opportunities, so much the worse for them.

What we need is a serum to make old men realize that they *are* old and stop trying to cavort around like a two-year-old. Let them sit in the corner and tell yarns, smoke, and enjoy to the fullest extent the luxury of freedom from responsibility and dire temptation. It's *our* turn now!—ED.]

DR. ATKINSON GOES TO ST. LOUIS

We are sorry to lose from our midst Dr. T. G. Atkinson, the brilliant editor of *The Medical Standard*, who has severed his connection with that journal and sold out his interests in *Practical Therapeutics* in order to become editor of *The Medical Brief* of St. Louis. What is the *Standard's* and Chicago's loss is certain to be to the advantage of the *Brief* and St. Louis. Time was when the *Brief* was one of the most powerful factors in the medical-journal field. It was derided by some, feared by others, but loved and admired by thousands. We look for a revival of its old-time interest under the powerful editorial guiding hand of Dr. Atkinson.

Keep your eyes on the *Brief*.

AN EPIDEMIC OF TYPHOID FEVER

During the last fifteen years of a busy country practice I have run up against many cases of typhoid fever, "the real thing," life-size, and generally came off victor. In an epidemic which I had on my hands in 1908, commencing in May and lasting till November, there were 90 cases that were confined to their beds from three to eleven weeks, and as many more that received the abortive treatment.

Through it all I had the assistance of one trained nurse in one family for two weeks. Three and four in one family would be down at a time, and in some places the sanitary conditions were very bad. For fear of contagion hired help could not be obtained

in many instances. Some member of the family would have to do all the work, nursing, cooking, etc., and you can imagine the care the sick can get from attendants that are completely worn out themselves. In one family, for instance, the wife was taking care of her husband who had hemorrhage; one boy, six years old, was wild with delirium, one girl when not under influence of opiate cried continually with pain, and another sick, and she herself six months pregnant; yet everything depended on her. They are all living and well today.

The cause of the epidemic is not known, but is supposed to be connected with the destruction of an old mill-dam that had been standing for years.

While there was not a death, all patients looked like walking skeletons when they got over it. The outcome was not only a wonder to the laity but also to the doctors in the surrounding country, and to myself it seemed miraculous.

I want to give here my plan of treatment. I will not enter into any symptomatology and pathology. Suffice it to say that the symptoms were of a plain-enough character not to leave any doubt about the nature of the disease.

While all will agree with me that in fevers nursing is half the battle, I had mostly to depend on remedies to help me out. In regard to treatment I am not going to give anything new, but just simply the plan which I followed and which always worked well in my hands. From the first I would try to impress on those in charge the great necessity of cleanliness in all respects in the care of stools, the benefit of uniform and regular bathing, etc. My first medicine would be a good dose of calomel followed by a saline laxative, kept up until I was satisfied that the inner man had had a good cleaning out. Most of the patients got a powder or capsule composed of the following remedies, in doses regulated by the age and physical condition of the patients. Antifebrin, asclepias, salol, sulphocarbolate of zinc, and in case of bad breath with a dirty coated white and brown tongue I would add the sodium sulphite. During the febrile stage the patients received these medicines right along every two to three hours, four times a day as needed.

Also, a liquid mixture containing the following medicines with elixir of lactated pepsin as a basis: Lloyd's specific echinacea, and baptisia, to which were added the following as indicated by the symptoms: small frequent pulse: aconite; full and bounding pulse: veratrum; a red, beefy tongue: dilute muriatic acid; sleeplessness, restlessness, nervousness: passiflora; flushed face, headache, determination of blood to head: gelsemium; pain and distention in the region of liver with clay-colored stool (usually while convalescing): chionanthus; pain and fulness in the epigastrium and general stomachic distress: nux vomica. Diarrhea was usually controlled with bismuth subnitrate, camphorated tincture of opium, peppermint; hemorrhage from bowels by Dover's powder, vegetable charcoal and tannic acid.

Calomel was continued throughout treatment unless there was hemorrhage, from 1-10 to 1-2 grain being given as needed, and followed by oil or a mild laxative. The bowels were frequently flushed with warm water—local application to abdomen, consisting of camphor, oil of turpentine and lard proved grateful. I succeeded in controlling most cases of delirium with passiflora and gelsemium, but sometimes had to resort to opium, codeine, and chloral.

In children I depended largely on bathing to reduce the temperature. The bathing in grown people was "quite a proposition," as very few had anything like a bath-tub.

The preceding is a general outline of my way of handling my cases, and while it may not be very scientific it has always been successful in my hands. If it will be of the least benefit to some younger man, I shall rest satisfied. Of course other remedies were used as indicated, such as stimulants, etc. The diet consisted of milk in any form to suit the patient, broths, soft-boiled or poached eggs, beef tea. I also used a good extract of beef, wine and iron.

Now if you can glean any part out of this worth publishing, all right, and if not

put it in waste basket. And if it is not necessary to use my name you can just leave it off.

C. R. KITSMILLER.

Fresno, O.

[We do not put this sort of stuff into the waste-basket, Doctor, nor do we like to leave off the names of contributors. Honor to whom honor is due! We congratulate you on the splendid showing you made in spite of all the handicaps and difficulties. Or was it because of them? You know, weaklings are easily snowed under by adverse circumstances, but strong men are thereby stimulated to better work.

I don't think I shall add any criticism at all. Every one has his favorite plan of medication, and it is the general management of typhoid fever that counts most. In this respect you have certainly done well. If I might add a suggestion, I should probably, in such a case, limit myself to a far smaller number of remedies. Calomel and saline laxatives; then the sulphocarbolates, throughout the course of the disease; strychnine, digitalin, hyoscyamine, monobromated camphor, as may be indicated. That would probably be all the remedies needed in the majority of cases. If hemorrhage occurs, an opiate may be indicated to secure absolute rest for the bowel, though in my experience atropine (associated with strychnine arsenate and glonoin if there be shock) does even better than the morphine. Of course there are special indications for special remedies, as you so clearly point out; and then we prefer the active principles when they are available.—ED.]

"PRACTICAL THERAPEUTICS" CHANGES HANDS

Dr. William J. Robinson, editor of *The Critic and Guide*, *The American Journal of Urology*, and *Therapeutic Medicine*, has purchased *The Chicago Clinic*, which has had an uninterrupted existence for twenty-three years (though known during the past year under the title of *Practical Therapeutics*) and has consolidated it with *Therapeutic Medicine*. The consolidated journal will be published monthly, and it is believed that under the editorship of Dr. William J. Robinson it will become one of the strongest and most important medical publications in America. The publication office is located at 12 Mt. Morris Park W., New York.

Since this was put in type we learn that Dr. Robinson has also acquired *The Medical Review of Reviews*. Here is a strong combination. We shall look for the combined result with pleasurable anticipation.

A CASE OF HARELIP

In January last I assisted a young woman in her labor. Owing to a narrow outlet of the pelvis and inertia of uterine contractions, I had to use the forceps. The child was delivered in a semicomatose condition; it revived, however, and was found to have harelip. On investigation I learned that three cousins of the family had been born with harelip. This shows heredity, I think. In this case the child had also a cleft palate; he is still living, but is in poor condition.

FERNAND D'ORBESSAN.

Ozone Park, N. Y.

A CASE OF NEURASTHENIA; ALSO ONE OF INSOMNIA

The patient was a lady, age 39, occupation housewife, married and mother of one child 11 years old. She was first seen when in bed, and was at that time much emaciated, very nervous, despondent, and could not sleep. She refused food, wept all the time and was very weak. I learned that she was badly constipated, had no temperature other than that due to nervous irritation, while her pulse was small and rapid. The disposition was naturally gentle. At first she refused utterly to be comforted and rebelled against any form of exercise.

Treatment was "clean out, clean up and keep clean," with calomel, podophyllin and bilein, with saline laxative the following morning before the breakfast hour. Intestinal antiseptics were administered two or three times daily. A mild tonic was given

three times a day and the bowels were kept open and free by laxatives, not purgatives. Exercise was enforced, notwithstanding her rebellion against it. I had her assist around the house and take daily walks and car-rides with a nurse in charge.

I first got the confidence of the patient and was firm. I impressed upon her mind that *she was going to get well.*

Plenty of good nutritious food was ordered, of a kind to impose no tax upon the organs of digestion. To produce sleep passiflora incarnata was administered at bedtime. Quiet sleep and rest were the result and complete recovery followed in due course of time.

Of course the hygiene was looked after carefully and the mind of the patient was kept pleasantly occupied. I believe it is best to educate the patient out of the discomfort rather than to dose her, though a few judiciously selected medicines are indicated.

A young lady stenographer applied to me for advice and treatment for insomnia accompanied with nervousness. The cause of the disturbance was too much work without recreation, and too long hours.

She was much reduced in weight, complained of a poor appetite and a failure to sleep. I advised rest, the "*clean out, clean up and keep clean*" (Abbott), followed with sulphocarbolates, all of which I administered, as well as a mild tonic treatment.

I sent my patient to the country with the advice to rest from all kinds of mental employment, to eat sufficiently of good nutritious food, take walks daily long enough to make her feel as though a rest would be good, light cold sponge-baths mornings, and not to fail to dip her feet in cold water after her sponge-bath, drying very lightly.

In one month my patient returned, stout, healthy and with her normal weight regained. She sleeps well and can go about as if she had never been ailing.

I neglected to say that at night, half an hour before retiring, I prescribed a preparation containing veronal in small doses, repeated in one hour if sleep failed to arrive. This served every purpose and the patient slept well every night after leaving the country for her city home.

J. E. WATSON.

Chicago, Ill.

ASTHMA AND CERVICAL BRACHIAL NEURALGIA RELIEVED WITH CROTALIN

The patient, a woman 38 years of age, has been troubled with bronchial asthma for fifteen years, more or less. I have had her under treatment for four years, during which time she has been fairly comfortable but never permanently relieved. Two years ago she developed a cervicobrachial neuralgia of the left shoulder and arm which, at times, was very severe and was broken up with hypodermic injections of hyoscine, morphine and cactin, but whenever she had an asthmatic attack the neuralgia became worse. I tried every remedy at my command without permanent success. I therefore determined to put her under treatment with crotalin, and the results are as follows:

Dec. 6, at 10 a. m., I gave her an injection of 1-100 grain of crotalin in the right side of the abdomen. I called at 6 p. m. There was quite a swelling and burning at the point of injection, no perceptible relief of the asthma or neuralgia. Dec. 7, at 10 a. m., the swelling and burning were receding and the asthma and neuralgia much better. Dec. 8, at 10 a. m., the neuralgia was completely relieved, asthma better than at any time in months, swelling and pain at point of injection almost gone. I called Dec. 9 at 10 a. m. and gave her another injection of 1-100 grain of crotalin in the left side of the abdomen. The next day I found the point very tender and swollen, and quite severe burning or smarting. The asthma was completely relieved and the cervicobrachial neuralgia all gone. She said she had not been able to breathe so easily within the last ten years; also, that about 3 p. m., after the second injection, she had a swelling of the tip of her nose and "it felt as if there were electricity in it, just as if sparks were jumping out." This sensation went away after 6 p. m.

I decided to wait a few days before giving her another injection, but on Dec. 15 I gave her a third one, in the center of the abdomen. The next day I noted the same conditions as followed the prior injections, i. e., local swelling and burning. All the other conditions were excellent. Dec. 18 I found all the swelling and burning gone, no asthma, no neuralgia, and she said that she had never felt better in her life. She was able to go up and down stairs, something she could not do for the last two years. She also lay down in bed and slept all night. This she had not done for two or three years; she always had to prop herself up in bed with pillows to get relief so she could get some sleep.

I can verify the truth of this statement, having been her physician for the last four years. I wish to note that this patient was menstruating at the time of the injections and instead of the flow being increased it had just the opposite effect. The flow stopped on the third day, whereas she generally flowed seven days. This is contrary to the experience of Dr. Mays.

In closing I will say that as the results in the above case were so remarkable I hope others will report results. I am keeping this patient under observation and will report any developments in her condition, either favorable or unfavorable, as occasion may rise.

W. F. RADUE.

Union Hill, N. J.

THE DEATH OF DR. REILLY

"Chicago's Most Useful Citizen"—this is the title given by the newspapers of this city to Dr. Frank W. Reilly, who passed away Dec. 16, 1909, aged nearly 74 years. Since his graduation from the Chicago Medical College, in 1861, nearly all of Dr. Reilly's career has been passed in the public service, first as a surgeon in the 26th Illinois Infantry during the Civil War, then as a sanitary inspector in Chicago, for six years in the Marine Hospital Service, for several years more as Assistant Secretary of the Illinois State Board of Health, and for the last fourteen years as Assistant Commissioner of Health in Chicago. As the *Bulletin* of the Health Department states, "his appointment marks the beginning of the efficient management of sanitary affairs

THE LATE DR. FRANK W. REILLY

in this city." It is due largely to the conscientious and efficient service of this citizen of Chicago that it has the lowest death-rate of any large city in the world. We cannot do him too much honor.

CROTALIN: AN IMPROVED METHOD FOR ITS ADMINISTRATION

In previous communications* on the action of crotalin the writer stated that the back of the forearm is being used for its hypodermic injection. This site had been selected because it is convenient, but chiefly because it is removed some distance from the center of the body and so offers a comparatively safe position in case of any untoward complication that may follow its introduction. The latter reason had a special bearing on the anxiety of the writer when he made his first few injections without any obtainable previous knowledge of the probable behavior of such a powerful poison on being introduced subcutaneously in the human subject, even in a small quantity.

That crotalin accomplishes all that has been claimed for it when given in the forearm has been confirmed by more than a year's experience with it, yet the writer has seen proof recently that it renders more prompt service when introduced over or near the seat of the local trouble. Thus, in lumbago and sciatica it acts with greater quickness when it is injected over the seat of pain in the lumbar region, or over the course of the nerves in the legs, than when given into the forearm. This is not surprising when it is recalled that morphine brings the quickest relief when it is injected over or near the seat of pain.

The same is true of tuberculous laryngitis and phthisical affections of the lungs when crotalin is introduced directly over the vagi in the region of the neck. Owing to the writer's previous favorable experience with silver-nitrate injections over the vagi in pulmonary diseases, this method of injecting crotalin had for some time been present in his mind, but was not attempted on account of a possibility that the edema which develops at the site of injection might prove detrimental to the rather loose tissues of the neck. That this fear was groundless was demonstrated a short time ago in a desperate case of phthisical laryngeal ulceration in which, after the arm had for several days been repeatedly injected with large doses of this drug, but without much avail, a single dose of 1-200 grain of crotalin, given over the left vagus, followed by another dose of the same strength in a few hours over the opposite nerve, promptly relieved the agonizing pain in the throat and the difficult breathing and swallowing. During the ten days in which the patient lived after this, his entire suffering in the throat as well as his cough and dyspnea were kept in subjection by daily injections of the same dose of crotalin on alternate sides of his neck.

Since the neck-method has shown itself to be free from danger, crotalin has been used in this way in the treatment of phthisis, bronchitis, asthma, epilepsy, etc., by the writer, in connection with the forearm-method, and it is believed with greater promptness and effectiveness than formerly.

The place for the needle-puncture is immediately over or slightly behind the pulsating carotid artery, in the region of the neck, in a line between near the angle of the jaw and the clavicle, and nearer the latter than the former point. In order to avoid puncturing the carotid artery or its neighboring jugular vein, it is important to pinch up the skin between the thumb and the forefinger of the left hand and introduce the needle just under the elevated skin.

It seems on the whole that the dose for the neck-injection is smaller than that for the forearm, and, so far as can be seen at present, varies from 1-400 to 1-100 grain, given once or twice a week, and on alternate sides of the neck, or if only one lung is affected, most of the injections are to be given on that side. In asthma, bronchitis and epilepsy small doses have been given on each side of the neck at the same time,

The object of this brief announcement is to bring to the notice of the profession that the neck-method combined with the fore-

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arm-method yields better results from smaller doses of crotalin than by the forearm-method alone in all cases of pulmonary disease, and probably in many other disorders in which the vagi or the respiratory centers are involved.

THOMAS J. MAYS.

Philadelphia, Pa.

A CASE OF SPINA BIFIDA

I am sending two views of a baby that was born in my practice and which presents

View of Dr. Childs' case, from the back

some interesting features. The child was born at full term, and the mother, a woman of Irish decent and in excellent health, was a multipara. The labor was normal, except that there was a breech presentation.

When born, I found that motion in the baby's knee and ankle was greatly impaired, the feet were turned in toward the head, and there was also spina bifida, as will be observed in one of the pictures. The child was normal in other respects and weighed eight pounds. However, it took nourishment poorly and lived only seven days.

H. E. CHILDS.

Noble, Okla.

[The pictures are not very good, being evidently of the "snap-shot" variety; however, they clearly show the spina bifida and the paralysis of the limbs. In all probability the latter condition was due to lack of development or destruction of the spinal cord, which is often the case in spina bifida. There is a suggestion of defect of the anterior wall of the bladder, though we suspect that this appearance is due to the indistinctness of the photograph.—ED.]

REPORT OF THREE CASES OF SCARLET-FEVER

Case 1. Nov. 27 I was called to see a six-year-old boy, who had been sick thirty-six hours. His first symptoms, the onset being sudden, were severe headache, vomiting, sore throat and high fever. I found a well-developed case of scarlet-fever. The throat was typical, and the whole body was covered with the rash, it having extended to a point half way between the knees and ankles.

I at once gave the usual calomel and podophyllin, following it with epsom salt, and began calcium sulphide, 1-2 grain every hour to saturation. The calcium sulphide was kept up, with the addition of aconitine and digitalin. After three days of this treatment the fever had disappeared and the child was comfortable. I continued the calcium sulphide, fearing middle-ear trouble.

Another view of Dr. Childs' case, showing paralysis of legs.

On the seventh day from the onset he developed lobar pneumonia of the left lung, and the urine was almost suppressed. I treated the pneumonia with the alkaloids and pushed potassium acetate for the kidney complication. Five days of this treatment ended the pneumonia and the diuretic was continued for four days longer, when I

had a hurry-call to see the patient at about 9 o'clock at night.

When I arrived I found that the child was unable to swallow except with the greatest difficulty, regurgitating fluids through the nose. He was unable to speak and could not grasp objects with his hands on account of choreic movements. All the limbs twitched and respiration was slow and jerky. The whole condition was a picture of an aggravated case of St. Vitus' dance, the paralysis of the muscles of deglutition and of the vocal cords pointing to some brain lesion.

The treatment given was strychnine arsenate to effect and has been kept up until the present time. The little fellow can run about the house and has no visible signs of his illness except the emaciation and a few ragged corners of skin at the edges of his feet where desquamation is not complete.

Case 2. Dec. 1, I found the two-year-old baby in the same family with all the symptoms of the disease, it having been sick twelve hours. The throat was scarlet, fever 103.2° F., and the eruption showing on its neck, in the axillæ and on the buttocks. There was some enlargement of the cervical glands.

I gave calomel, 1-2 grain, to be followed in six hours with castor oil. At the same time I began calcium sulphide, 1-6 grain every half hour, to be continued until signs of saturation; then I increased the intervals to one hour. I saw the child the next morning and found that the rash had so nearly disappeared as to be barely discernable and the throat had regained its normal appearance, except for a slight enlargement of the tonsils. Recovery was uneventful, and without ear or throat complications. I kept up the saturation with calcium sulphide for two weeks in this case. There was no desquamation and consequently no kidney trouble.

Case 3. Dec. 3, a ten-year-old boy in the same house showed all the classical symptoms of scarlet-fever: red throat with great soreness, high temperature, vomiting, while a zone around the mouth and the eruption appeared on the neck and in the axillæ. I unloaded the bowels and pushed calcium sulphide to saturation, with precisely the same result as in Case No. 2.

Now, the point I wish to make is this: In case No. 1 *the patient had been sick thirty-six hours before treatment was instituted.* In Nos. 2 and 3 the treatment was begun as soon as the disease was recognizable. Cases Nos. 2 and 3 were "aborted" or cured within twenty-four hours.

It seems that early diagnosis is imperative in these cases and that no time is to be lost in pushing calcium sulphide to saturation.

ALSON BAKER.

Dreyfus, Ky.

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[Doctor, your point is well taken. There is every incentive to early and vigorous treatment, of which thorough saturation with calcium sulphide should be an essential part. That (given early) it will cut short the course of scarlet-fever, measles, whooping-cough, smallpox—even yellow-fever, we are absolutely convinced, and so is everyone who has given it a sufficiently exhaustive test.

The complication in the first case is unusual and deserves more careful study. Sorry we haven't a complete laboratory report. Often this would throw a flood of light on the diagnostic niceties, which mean so much to successful treatment. Any ideas, brothers of the family?—ED.]

NOTES FROM PRACTICE: ARBUTIN, SULPHOCARBOLATES, CHROMIUM SULPHATE

I am going to give you a few of my therapeutic experiences:

Arbutin.—It seems to me I get best results from this drug in cases of acute or chronic cystitis. It lessens the frequency of urination, soothes the inflamed mucous membrane and in dosage "to effect" rapidly cures the majority of them. I have also found it useful in chronic hypertrophy of the prostate. Recently I had an old man of 70, otherwise in good health, who had to use a catheter at different times, finally becoming unable to urinate at all. I drew off a lot of thick, milky, pus-laden urine.

He was placed on podophyllin and calomel to keep the bowels clear and green pills of urotropin, arbutin and lithium benzoate. For three different days it was necessary to catheterize him, but for the last two months he has had no trouble in urinating, and says he is better in that way than for ten years past.

This is only one case, but in *every* case where I have given it in enlarged prostate there has been at least slight benefit. I don't expect to cure these cases, but if it makes the patients comfortable it is all they ask.

Sulphocarbolates.—In my practice I use an amazing lot of sulphocarbolates. The use varies from summer diarrhea to chronic gastritis. Given in cases of dyspepsia with gas formation, to be taken in 5- to 10-grain doses after meals, the relief is often marked, not only in the amount of gas formation but in the digestive processes as well. It is preferably given an hour after eating dissolved in water or followed by a glass of water.

Our specialists use zinc sulphocarbolate in the strength of 1 to 2 grains to the ounce of water for a spray in simple chronic catarrh of the nasal cavities, and if it is of benefit in this condition (and it is) the combined salts should be of the greatest benefit in chronic gastric catarrh with hypersecretion of mucus, or in hyperchlorhydria. On this reasoning I gave the sulphocarbolates recently in a case of acid dyspepsia, combined with sufficient sodium bicarbonate to neutralize the acid for the time being. In one week the patient was improved and needed much less of the soda, and after two or three weeks he had very little trouble and could dispense with the soda altogether. In addition to the preceding he had strict regulation of the *primæ viæ*.

Chromium Sulphate is rather a disappointment to me thus far. I used this drug in one severe case of neurasthenia without effect, although I gave it a good trial. One case of enlarged prostate, in an old man of 80, seems to be improving quite rapidly, though it is hardly time yet to judge of its permanent effects.

Thyroid Extract.—I recently gave thyroid extract to a patient who had menstruated every two weeks for several months. She is approaching the menopause. The menstrual function resumed its normal course and has continued so for several months.

R. A. BLACK.

Sullivan, Me.

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[This is a very interesting report. We should have many of them. We are particularly anxious for more data regarding chromium sulphate. Who will give it?—ED.]

LEGITIMATE KNOCKING

The knocker is prevalent here and elsewhere. He is in evidence in the medical journal as well as the lay paper. There is a vast difference in legitimate knocking and the other kind. The illegitimate knocker *always has an axe to grind.* The legitimate knocker has some better reason than that for his knocking.

The editor of CLINICAL MEDICINE knocks at "galenicals," and this is legitimate knocking, because he has something better to offer in the place of galenicals. He demonstrates that alkaloids are more dependable than galenicals. He did not have to show the people (profession) that quinine is a preparation superior to Peruvian bark or that morphine is superior to opium. These two truths were self-evident, but he did have to show that many of the newer alkaloids are better than the old-fashioned extracts on the market. This was not an easy task, but he was equal to the occasion.

He, the Editor, knocks at slip-shod therapy, which is also prevalent. The average doctor does not pay much attention to the preparations or medicines he uses. He sends them out and expects results, but if he fails to get results, he rarely ever places the blame on inferior drugs or dishonest druggists, but suspects that the diagnosis was wrong or the case unusually hard to manage.

Dear reader, if you will follow up your prescriptions and examine them closely,

as to taste, appearance, etc., you will soon find out that what you thought would be palatable and elegant in appearance is not so, and after testing you will wonder whether there has not been some mistake made in compounding. You pick up a half-emptied medicine-vial, and it is muddy with much sediment and has a bad odor and a worse taste, and you say to yourself: "No wonder the little patient could not retain this; I could not take it myself. Gee whiz! it is sour, bitter, nauseating, disgusting," and you will turn to the little alkaloidal granules knowing that if these are dissolved in water or swallowed as they are none of those bad results will ensue.

Yes, legitimate knocking is necessary and right. Go ahead, Dr. Abbott, and keep up your racket until you convince the most obstinate that alkaloids are superior to galenicals. It may require time, but all laudable enterprises require time, patience, perseverance and persistence. Success to the legitimate knocker!

W. P. HOWLE.

Charleston, Mo.

CREOSOTE IN PULMONARY TUBERCULOSIS

Dr. E. G. Von der Goltz says, in *The Homeopathic Recorder* for December, 1909, that "in the longer or shorter run the premature death of the consumptive patient is brought on by starvation based on the ruined stomach from the influence of creosote in whatever form in even *minimum allopathic* (*scientific*) *doses*." (Italics ours.)

URETHRAL STRICTURE: PATHOLOGY AND TREATMENT

G. A. Rowe, Buffalo, N. Y., in *The National Eclectic Medical Association Quarterly* for December, 1909, claims that the treatment of urethral stricture with medical remedies is not as satisfactory as we might wish; but in the earlier stages or before deep cicatrization has resulted cures may be effected with combined local and internal remedies, more dependence being placed on the former. Any remedy that will reduce inflammation and favor absorption of the cicatrix tends to cure stricture. Perhaps the agents best suited for this purpose are some of the salts of silver. Protargol in 1-percent solution, or argyrol in from 1- to 20-percent solution injected night and morning will produce the most beneficial results. [Oily solution of thymol iodide will be found to give at least equally favorable results. —ED.]

A CASE OF SKIN DISEASE

The enclosed photo will show you what I believe to be a case of pellagra. This boy, nineteen years old, gives a history of living in this grand country for sixteen years. He has no consumption and no signs of gonorrhea. He joined a thrashing gang at harvest time and went through the season with them, the diet being mainly canned goods, such as tomatoes, corn, beans, peas and other stuff of that description. After his work season was over he thought "boot legging" more profitable than farming, and went at that. He was arrested and given a jail sentence. I being the county physician he came into my hands.

When taken, the hands and feet were first affected. The hands now are practically well, the feet giving trouble. I have him under treatment, giving the iodides and intestinal antiseptics.

I shall follow this case up to a finish as his jail sentence lasts four months, thus affording good opportunity for observation.

E. D. S.

——, Oklahoma.

[Of one thing we feel quite certain—this is not a case of pellagra. To make an accurate diagnosis more complete data are necessary. We should know how long the skin disease has been present; if it is associated with systemic symptoms, or with digestive disturbance; if it is permanent or recurrent; the color, contour and elevation of the lesions; if there is scaling; and finally, the nature of the subjective symptoms, as

itching, burning, etc., It looks like a case of psoriasis, it seems to us.—ED.]

"SCRAP BOOKS AND CLIPPINGS"

When I read a medical magazine I mark with lead pencil the things I should know but don't; these I constantly review for

Back view, same case

months and years until I know these very things and can use them any time or anywhere. Running to reference books frequently will, in time, weaken your memory.

To read a valuable suggestion and then let it pass from memory is a loss of time, also it is not good for your memory.

Much of what I read is simply a review to me or matter that doesn't appear to be useful in my practice, but even in a long and, to me, dry article, I often find a splendid suggestion which I have never heard before and which I simply must not forget. This I mark with a pencil, and when I am making my reviews I find it easily and never allow the dust of forgetfulness to stay long on it, nor do I have to hunt it up in some reference-book as a half-remembered, half-forgotten thought. I also have more confidence in myself.

Here is a sample of my work. In giving calcium chloride, let the patient fill a gelatin capsule with it at the time of taking. The advantage is obvious.

For recurrent boils give dry yeast, one No. o capsuleful every three hours.

For bruises give arnica internally.

For sores, cuts and bruises apply succus calendulæ locally.

For constipation supply the patient with Waugh's anticonstipation granules and tell him to use just as few as will do the work and by degrees reduce the dose as fast as possible.

For sticky moist eruptions give graphites.

For loss of memory try my celebrated plan of using it properly so as not to let it atrophy.

Possibly you would better blue-pencil the next:

For puffiness under the eyes give apis mel.

For gravel give urtica urens, 5 drops of the tincture in a cup of hot water every three hours.

For hiccough give ginseng, also gargle with water.

For pains that are made worse by rest and better by motion, rhus toxicodendron.

F. POLLARD.

Garberville, Cal.

BARBER'S ITCH

In reponse to the editor's request for suggestions for the treatment of barber's itch (trichophytosis barbæ) in the January number of CLINICAL MEDICINE I am submitting the method which has served me best in the cases (seven in all) that I have treated in twenty-three years. (That this is not

a common disease here you will readily glean from the limited number.

Barber's itch is a contagious, parasitic disease, and therefore it is necessary to use antiparasitic remedies for its cure. In the early stages, before the hair-follicles have become involved, we can often prevent its spreading by painting the affected area with a solution of bichloride of mercury, 5 grains to the ounce of alcohol, and adding 2 drams of glycerin to the mixture will improve it. Apply this twice a day, using a cotton swab, a new one every time you make an application.

The following ointment by Ihle is also excellent:

Resorcin	10.00
Starch	25.00
Zinc oxide	25.00
White vaseline	50.00

Label: Apply three times a day, rubbing it in thoroughly.

When the hair-follicles have been invaded and tubercles form, more active measures must be instituted. Epilation is now an essential part of the treatment. The hair must be pulled out over the affected parts, and shaving must also be practised here. It is well to shave one day and epilate the next, and to apply the parasiticide after either, reapplying it two or three times a day.

The following will be found excellent: Wash the parts with a solution of mercury bichloride, 2 grains to the ounce of alcohol; then apply this ointment:

Ichthyol	dr. 1
Chrysarobin	dr. 1
Salicylic acid	grs. 30
Lanolin	oz. 1
White vaseline, q. s. ad.	ozs. 2

Label: Apply twice a day and cover with oilsilk.

This treatment is all that may be desired for the successful treatment of this disease, although at times it is very rebellious. Perseverance will eventually overcome it. The next case that comes under my care will be treated with carbenzol. This is a powerful parasiticide and has given excellent results in my hands in all kinds of skin affections. I use it either pure or diluted, as the case may be. I hope some of the "family" will give this preparation a trial in barber's itch and report results. I am sure it will prove most successful. I would suggest washing the parts thoroughly with carbenzol soap, then applying carbenzol, either pure or diluted.

W. F. RADUE.

Union Hill, N. J.

ANOTHER CURE FOR BARBER'S ITCH

The letter by Dr. C. D. Martinetti on "Barber's Itch" (page 107, January CLINICAL MEDICINE) is interesting. Recently a dentist living in my home town came to consult me relative to a "breaking out" that covered his entire face, "in spots." He had contracted the disease in one of the local barber-shops, the proprietor of which wished to take all the necessary precautions against infection; but luck was against him, as there seemed to be a number who contracted the disease at this shop.

The treatment I gave this patient cured him in four or five days. Here it is: Pull the hairs out carefully over the affected area and apply ungt. hydrarg. oleatis (5-percent) until considerable reaction is excited; then ungt. aquæ rosæ, until the acute inflammation subsides; then twice a day, wipe off the patch with dilute vinegar, and rub in the following:

Sodium sulphite	dr. 1
Vaseline	oz. 1

If there is very much surface involved treat part of it at a time, or the patient will "cuss" you as well as the barber. But you will cure your patient in four or five days by adopting this course.

W. C. SQUIER.

Princeton, Ind.

BARBER'S ITCH

I treated two cases of barber's itch by rubbing dry calomel into the pustules, either open or unopened. My experience has been that they mature very rapidly and the

dry calomel will cure them in several days if used twice a day.

G. L. BAUGHMAN.

Kansas City, Kan.

GRIP AND ITS TREATMENT

I have had this disease on three different occasions. The duration of the first attack was one month. All the remedies used were noneffective, then a Turkish bath was resorted to, with cure. In the second attack I had acetanilid with a Turkish bath. Result: rupture of the tympanum—included in the cure. During the third attack I attended to my professional work until complete deafness and anosmia set in, then superheated dry air at 400° F. was used, which caused a permanent cure, leaving all of the organs normal.

I find there are many persons who seem to believe that superheated dry air at 400° F. and above, the Turkish bath and the vapor-bath are one and the same in therapeutic effects. From my point of view, I have found the Turkish bath and the vapor-bath are positively injurious in grip. In this position I am assured that I do not stand alone, as others have had vicious experiences with them. However, with the superheated dry air, at 400°, 410° or 420° F., a cure of this disease is rapidly completed with little or no loss of time and no evil results to the patient. To make my position more tenable I will mention the following:

Case 1. A young man, age 30, worth about $3000, was taken sick and passed into the hands of several physicians, who at diverse times called the disease tuberculosis, grip, etc. Seeing no improvement, he was at last advised to go west and from whence he returned a pauper, with the disease still intact. At this stage I saw him. The patient's appearance did not indicate serious sickness; but he was not ambitious. His family wanted him to follow his occupation, which he claimed he could not do, because of his weakness. The family refused him material aid, with the result that he went by the powder-and bullet-route. Autopsy showed no tuberculosis.

Case 2. Man, aged 40, advertising manager of a large daily paper. He was under the care of a physician, and had taken phenacetin and salol for two weeks, leaving him weak. His debility was intense, the remedy not having any visible effect on the grip. At 4 p. m. the patient was placed in the superheated dry-air apparatus, the thermometer showing a temperature of 420° F. He left the office at 9 p. m., went home (a distance of three miles) through the snow and was at his desk the next morning, a perfectly well man.

Superheated dry air at high temperatures is usually looked upon as debilitating and, it is said, must not be used in persons who are weak. The very opposite is the case, as it has proven itself exhilarant and tonic, and is the enemy of debility in a way that I can not find in any other remedy.

Case 3. In the winter of 1903—4 there occurred an epidemic of grip that was different from anything I had seen before, viz., the virulence of the disease was expended upon the abdominal contents plus the weakness of the grip. In the case of a man, aged 45, superheated dry air at 485° F. was used locally, with an immediate cure.

Case 4. A man, age 25, vigorous constitution. This patient had an attack quite similar to the foregoing, but he refused superheated dry air and preferred other treatment. His physician wrote the prescription which should afford relief; but the patient died on the seventh day.

Of all medicines at the disposal of the prescription-writer there is not one that is of any benefit to a patient suffering from grip. However, the dispensing physician finds in calcium sulphide the one striking exception. I have used this remedy in grip, but heretofore in too small doses. This valuable drug, to be effective, must be given in daily doses of 10 grains and more, and when thus used it ranks as an efficient remedy in grip second only to superheated dry air. It is the only medicine known to me to be effective and is best given up to 100 1-6-grain granules daily for a few days. From this manner of giving this medicine the only disagreeable effect is a thickly coated tongue,

which in this disease proves rather an advantage than otherwise.

Several years ago, at a time when I had hardly recognized the importance of 100 granules of calcium sulphide per day as a dependable cure for grip, a man called, age 50, who remarked after his inspection: "I would rather be taken to Spring Grove cemetery than go in that hot box." He passed on into other hands and died on the third day by the heart-failure route.

There is no contraindication to calcium sulphide known to me, although when using the remedy we do not fail to observe a moist skin. This can not be said of superheated dry air at 400° F., as this remedy requires some attention, viz.: Thrombus (as in ulcer of the leg) if ignored may cause embolus and from such a cause gangrene may result; however, this should hardly be possible in careful hands. Moreover, I have hesitated to use dry air in cases of suppuration when found in connection with appendicitis. If either one of the two conditions is present at the time of the attack or the treatment, it should not be overlooked that there is a remote possibility of complication from this source. Under all other conditions the superheated dry air at 400° F. and above is positively innocent and can do no harm, and it will surely be found a tonic, stimulant and a revivifier of the body-forces second to none, and it is *the* remedy to be selected in the case of an adult suffering from the disease who wants a quick, safe and sure cure.

Coryza.—The combination of atropine, aconitine, morphine and calomel, in small, frequently repeated doses, is sure and quick in action. These remedies, given every fifteen minutes, will give results before the physiologic effect is apparent. They usually place the patient at his work the next day, when they can be taken once every three or four hours.

Acute Bronchitis.—Tartar emetic in small dosage is specific.

Chronic cough and bronchitis in patients with pleasant surroundings and tractable: Intestinal antiseptics will give quick returns. Antisepsis is a satisfactory treatment here.

In muscular rheumatism, lumbago and sciatica, I am partial to the static brush.

A. W. RINGER.

Cincinnati, O.

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[Dr. Ringer always has something worth while. His very favorable experience with superheated air is sure to encourage others to give this remedy a careful trial. He does well to praise calcium sulphide, which is a remedy *par excellence* (as our French brethren say) in nearly all the acute infections, and particularly in those affecting the respiratory tract. There is a wealth of helpfulness on influenza in the "Postgraduate Course" this month. Read it!—ED.]

PNEUMONIA, GRIP, GASTRIC ACIDITY

I would not miss a single copy of the CLINIC for $5.00. I have learned all I really know about medicine through THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

"Don't know much," says some one.

Well, I admit that, but it's not the fault of the journal, and it the editor will permit I will give a few "thumb-nail sketches" from my seven years' experience with the active-principle remedies.

Case 1.—Mr. R. called his family physician; after about four hours, not succeeding in getting him, he called me and said, "Doctor, I wish you would come down and see my wife. She had a chill this morning which lasted about two hours, and she is now suffering severe pain under the shoulder blade. Come quick."

On entering the room a few minutes later, I noticed an anxious look on the patient's face; right cheek red, left one pale, breathing rapid, with a stitch at the end of expiration; a hacking cough. After sitting down by the patient's bed I thought I saw her spit some blood into the ash-pan, so with a paper I caught some of the sputum and, sure enough, there was the typical rusty sputum, a little bit brighter than usual. There were new-leather râles over the lower lobe of the right lung; pulse 110, temperature 103° F. She was restless, tossing from

side to side, almost delirious; respirations were thirty per minute.

I said to Mr. R., "Your wife has pneumonia."

"We thought she might have," he said.

Treatment: I emptied the bowels with soapsuds enema, gave calomel and podophyllin every hour to effect, followed with a saline laxative, then gave sulphocarbolates every two hours in 10-grain doses. As the pulse was full and bounding I gave the dosimetric trinity every five minutes for one hour.

"Dangerous," says someone.

Yes, but I had a watch in my hand and fingers on the pulse. By this time the pulse was 100, respirations 25, temperature 102° F., skin was now getting moist. Then I gave a granule every half-hour until the temperature came down to 100, then a granule every hour for twenty-four hours, when the temperature was normal. She sat up on the third day and went home on the fourth, as she was visiting her sister about a mile from home.

I went to see her every eight hours for three trips. I am not afraid to give these granules rapidly when I am looking the patient in the face and have my fingers on the pulse.

After she made such a quick recovery some said she didn't have pneumonia, or she would not have been up within nine days, but m re probably fifteen or twenty.

I have had several cases similar to this with results as good, and would make affidavit that in these seven years I have not lost a single case of pneumonia, i. e., if I am able to tell a case of pneumonia when I see it. My rule is to work fast in cases of pneumonia, stop the congestion, equalize the circulation, and keep the bowels nice and clean.

Case 2.—Mr. L., age 25, married, two children, family history good. He suffered for three weeks with severe pain in the left temple, growing worse from sunrise till noon, then better as the sun went down. Another physician gave morphine, but the trouble was not controlled. When he came to me I dissolved eight granules of atropine, gr. 1-250 each, in one ounce of water and dropped three or four drops in the eye; next morning I gave the same treatment. The next time I saw Mr. L. I asked, "How is your head now?"

"It's well," he said, "and has been ever since you put that medicine in my eye. I went home and remained in the house till noon the next day waiting for the pain to return, and as it hadn't I went to my work that afternoon and have been able to work ever since. The pain never did return."

I have cured several cases of chronic nose bleeding with atropine. I have never had a case of postpartum hemorrhage, as I give atropine early and to effect.

I control the flow of the menses with atropine, when it is too profuse.

When my wife was about six months pregnant she suffered with hyperacidity, worst case I ever saw; couldn't take any nourishment, had intense pain in the stomach, said she felt like there was a coconut or something of that kind in it. I could not get anything from the textbooks that would help me.

After I had been up night and day with her for two weeks, I gave her hyoscine, morphine and cactin. Her face, which had been pale, in about thirty minutes began to flush a little. She said she was getting easy. In less than an hour she went to sleep and rested well all night and wanted nourishment next morning. I gave two more evening doses and improvement continued rapidly until she was up again within four or five days from the first dose.

I have had some valuable experience in the treatment of typhoid fever, pneumonia, smallpox, grip, obstetrics, etc., successfully treated along alkaloidal lines.

Will say in conclusion that I value your journal above any other medical literature. There have never been enough good things said about you and the great work you have done. I am very much pleased to know that the medical profession is so rapidly falling in line on active-principle medicine.

J. A. PRESLEY.

O'Brien, Tex.

[Whether pneumonia or not, the first case was caught in its incipiency, and none too quick. The name-diagnosis matters little. Everyone should read Dr. Shaller's article, this issue. As he says, "As a rule there is no difficulty in breaking up or checking a congestion if correct treatment is applied early enough." The secret of success is to get busy *early*, and if before the stage of positive recognition of a pneumonic process, so much the better for the patient.

Dr. Presley's method of "getting next" on that case of headache was well thought out. Probably there was some refractive trouble, the tension of which was relieved by the cycloplegiac. Hope you sent Mr. L. to a good oculist, Doctor. That's the proper "follow-up."

Your reasoning was good in your wife's case. When you have a pallid face, with severe pain (especially in headaches), don't further depress the circulation with acetanilid or similar drugs. The hyoscine combination which flushes the face physiologically while relieving the irritability of the secretory nerves, arresting the too great activity, met the indication. The one thing to remember is that this combination should not be given continuously for any considerable period. More, Doctor!—ED.]

INFLUENZA AND ITS TREATMENT

Dr. Candler's paper in the February, 1909, number of CLINICAL MEDICINE is an admirable production on that subject, but contains some frills on treatment that, however useful they may be in a wealthy and educated clientele in a city, are practically without merit to those of us who are doing rough-riding in the country where, in this season of the year, we treat the disease daily.

Firstly, many of us are doing business a few or many miles from a base of supplies and cannot write an order and start a man to the drugstore or instrument-maker, or both, to procure the articles which the doctor describes, but must perforce carry with us our own implements of war, and these things would be both too expensive and cumbersome—expensive for our patients and cumbersome for us. For instance, I start on my rounds on horseback with two pairs of saddlebags and a hand-satchel loaded with tablets, pills, powders, alkaloids, etc., all my horse can carry through sand from six to twelve inches deep, with my weight added, hence it will be seen that more would certainly be an encumbrance. On my round, covering possibly 20 to 25 miles of mire, I may make from six to ten stops to prescribe for grip and would have to carry necessary instruments for at least that number.

Secondly, many of our patients are illiterate—very much so, in fact—and would not comprehend the use of the frills if explained to them, hence either from ignorance or carelessness, or both, they would disregard the instructions.

Thirdly, many of our cases will be housed in a log hut containing one room 14x18 feet in size, with a shed behind in which the cooking is done, and in this enclosure there live from six to twelve people, half of whom may be down at one time with the grip. Here will be seen at once the impracticability of isolation of the well portion of the family who may never take the disease at all because of their resisting power, especially if their condition be inquired into and whatever is amiss with them corrected at once by the indicated means. In most of these cases the means indicated will be a thorough cleaning of the alimentary canal.

I am fully convinced by my experience that grip is a multiple infection producing an autointoxication, mainly gastrointestinal, and that the local infection is comparatively insignificant so far as systemic disturbance is concerned. Local treatment therefore is merely palliative for the local expression, and the great battle must be fought by the internal treatment.

Without criticizing Dr. Candler's treatment except for its inconvenience to us on the outskirts of civilization, I purpose to outline a treatment for the rough-riders in the profession which has given me satisfaction for many years, and in which cumbersomeness and inconvenience are conspicuous by their absence.

Right at the start I want to say that aconite or aconitine, strychnine and calomel will positively cure three-fifths of the average cases of grip within one week, other things being equal.

The first reduces congestion, prevents inflammation, and controls the fever.

The second increases respiratory power, hence measurably prevents extension of the infection to the pulmonary tissue, and sustains the vital recuperative power of the patient.

In children, old people and asthenic cases I give the strychnine arsenate, and in the robust sthenic young and middle-aged people the sulphate is preferred by me.

The third remedy is given for its detergent effect, at first in considerable amounts, from 3 to 10 grains according to the patient's condition, in divided doses, followed by a saline, and after evacuation of the bowels it is continued in 1-10-grain doses every two hours until the patient is on his feet, for the purpose of inhibiting the toxemia; and this is the vital point, *inhibit the toxemia*.

In selected cases it may become necessary to give the combined sulphocarbolates or salol instead of the calomel, but as a rule calomel suffices.

If there is a marked pharyngitis with sticking pain on attempting to swallow, calcium sulphide in suitable doses will speedily subdue it. I usually give 1-2 grain every one or two hours for three to five doses.

If there is severe congestive headache with photophobia, belladonna or atropine will soon give relief. If the headache be accompanied by flushed countenance, watery discharge from the nostrils, contracted pupils and drooping eyelids, gelseminine will cure it. If the headache is aggravated by light and the face is very red, glonoin will be helpful. If there be violent sneezing with watery discharge, iodized calcium, one grain, every hour for three or four doses will be effective. If the temperature is high and there are marked indications of toxemia, such as drowsiness or stupor, and it appears wise to promote elimination rapidly through diaphoresis, 10 grains of zomakyne in hot solution every hour for three doses will be effective. Pilocarpine, of course, will do as well, but I have given the coaltar combination the preference in practice.

For detergent effect of nares and fauces a weak solution of sodium chloride or sodium bicarbonate snuffed into the nostrils or gargled is sufficiently effective in the earlier stage of the disease. Later, when the discharge from the nostrils is profuse and mucopurulent, one grain potassium permanganate to the ounce of boiled water is to be preferred; stronger solutions will prove irritating to the mucosa. Very often, however, these measures are superfluous and the patient does not wish to be annoyed by them.

If the cough is severe, spasmodic, arising from a tickling in the pharynx, accompanied by dyspnea, and aggravated by lying down, belladonna or atropine will speedily cure it. If the cough is loose and rattling, the same remedy is apt to be very useful. If the cough is harsh and the chest muscles are sore from coughing, bryonin is the remedy. If there are no specific indications for other treatment of the cough and it is very annoying, heroin in doses of 1-16 to 1-24 grain has given satisfaction.

If an expectorant is needed, I prefer apomorphine to all other drugs of this class. The dosage must be according to the patient's idiosyncrasy. Grain 1-67 hourly has been very effective with some patients, others have required larger doses.

For the intense aching so common to these cases salol or zomakyne [An acetanilid compound tablet.—ED.] have been very useful; as a rule, however, as soon as effective intestinal elimination has been established, these pains disappear. The fluid extract of eupatorium, in doses of 10 minims, in hot water every hour until diaphoresis is established will greatly mitigate the aching, but larger doses will nauseate many patients because of the intense bitterness of the drug.

The great difficulty with influenza is met with in patients advanced in years, and here strychnine arsenate should be pushed at the rate of 1-50 to 1-30 grain every two or three hours until there is a reaction, then less frequently, not forgetting to inhibit the

toxemia with calomel, 1-10 to 1-5 grain every hour to effect, then less frequently to maintain antisepsis.

Two points we should always remember, viz.: (1) that we have a toxemia presenting the symptoms common to that state; (2) that we have a patient with an individuality who may present symptoms contrary to any other individuality, and our aim should be to make our treatment conform to both elements. This is scientific prescribing.

For reconstruction, especially with the aged and those with a tendency to pulmonary weakness, there are few remedies which compare favorably with our time-honored friend, the syrup of hypophosphites comp.

M. B. TULLER.

Crawford, Ky.

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[It appears to me, Doctor, that for a "rough-rider at the outskirts of civilization" your treatment is pretty civilized and might confidently be carried out in the centers of population. When you object to the "frills" described by Dr. Candler in the paper referred to, you must remember that CLINICAL MEDICINE visits all sorts and conditions of physicians, some of whom like the frills while others do without them, from choice or from necessity. But all are brainy and thinking men who pick out from the information in the journal what best helps them in their work. As to what is "frills" opinions differ. Not so many years ago the telephone belonged to that class. Today it is a necessity. In like manner certain methods of treatment may appear finicky and "frillish" (if I may coin the word) to some, while others regard them as indispensable. It's all a matter of opinion.—ED.]

THE BACKBONE MONTHLY

The first number of the little monthly is now ready. If you are a subscriber you have already received your copy; if you are not a subscriber you should "line up" at once—also push along The Backbone-Club movement by helping us place the publication in the hands of as many laymen as possible.

The first number contains many things of special interest. For instance, there is a little article on "New Year's Resolutions" by "Snips," which is as funny as it is sensible. Dr. Butler tells the objects of The Backbone Club, an organization which purposes to fight graft and falsehood; there is the first of a series of letters "From a Baseball Fan to His Son;" an article on "That Body of Ours;" a poem on "The Doctor," by James Whitcomb Riley; "Richard Parr—A Man with Backbone," by Alfred S. Burdick, tells the story of the man who forced the disgorgement of $2,000,000 by the Sugar Trust. (Mr. Parr's picture is used as a frontispiece, and he is elected first honorary member of The Backbone Club.) Dr. Ernest F. Robinson writes on "Do Your Own Thinking." A poem by Dr. W. F. Radue, "If I Were You," is excellent. "Quit Your Fussin'" is another poem, written by "Uncle George." Still another poem, "Be a Vertebrate," is contributed by L. W. Zochert. Lots of other verse. There is a bunch of "Success Pointers" by Dr. Abbott, an article by Dr. Lanphear, and a whole "String of Vertebræ" by various people.

We miss our guess if *The Backbone Monthly* doesn't make a hit. Many members of the "family" have "come over the plate" with their subscriptions. Quite a number have sent in subscriptions for their friends and customers—some fifty or more each. Inasmuch as this little magazine is to serve as a bracer for the doctor and as a real helper in giving him support it should be taken up strongly and earnestly. Just to show you how it is appreciated by those who are behind the scenes I will whisper that one large New York firm has subscribed for more than 500 copies to be sent to its customers—and that others are likely to do the same, if we can judge by our very flattering correspondence.

The publishers of *The Backbone Monthly* will appreciate your cooperation—and they would simply love to have your coin. Fifty cents pays for one copy for one year. Three subscriptions for a dollar. In bunches of five or more you get it at half price—25

cents for each subscription. Why not put some of your friends on the list? We want to build our list up to 25,000 within three months. Send us $1.00 and we'll send you forty copies of the first issue for distribution where they'll do the most good.

DO YOU WANT THE INDEX?

If you wish a copy of the annual index of THE AMERICAN JOURNAL OF CLINICAL MEDICINE for 1909 please drop us a line at once. The index has been prepared with unusual care this year, and is, we think, the best we have ever had. It is now printing, and should be ready for delivery by the time this copy of the journal reaches you. It is free to every subscriber.

CICUTINE HYDROBROMIDE AS A SEDATIVE AND HYPNOTIC

Cicutine hydrobromide merits the attention of the profession. In a case of cancer of the intestines coming under observation about two years since I found three granules, 1-67 grain each, given every four hours, to relieve pain materially and afford necessary sleep.

For a "fidgety" condition it works much quicker in doses of two granules used according to indication. About six weeks ago I was called to see a case of cerebral apoplexy with left-sided hemiphlegia.

The case progressed favorably, yet at times there was involuntary and extremely painful muscular contraction in both lower extremities, worse in the left. In this condition hyoscine, morphine and cactin were given hypodermically, and afforded relief, but the condition returned after the effect of the combination had worn off.

I then put him on two granules of cicutine hydrobromide, gr. 1-67 each, every half hour, and after the third dose he went to sleep and had a comfortable night, awaking without any drug after-effect whatever. I used the hyoscine-morphine combination for immediate effect, which was to entirely relieve pain; then followed with cicutine hydrobromide as above.

I concluded that two granules was the proper dose to prescribe in this case, and so directed that it be given every half to four hours according to the condition. I have always found the hyoscine, morphine and cactin reliable and practically free from the bad effects of morphine alone or combined with atropine. I use the half-strength tablet.

I have under treatment an old lady, the victim of cerebral softening. Cicutine hydrobromide lessens the severity of the attacks of irritability. She requires one or two every two hours. There do not seem to be any bad after-effects. Later I will give the results.

What would a therapeutic nihilist do in such a case? H. R. POWELL.

Poughkeepsie, N. Y.

[I heartily approve of Dr. Powell's suggestions. Try the cicutine hydrobromide also in painful menstruation (functional) in place of or in addition to the uterine-tonic formula. Give it or the uterine sedative. It works like a charm in most cases. Cicutine, from the white hemlock, is a spinal sedative and as such has a wide range of usefulness.—ED.]

THE INTERNATIONAL AMERICAN CONGRESS OF MEDICINE AND HYGIENE

The International American Congress of Medicine and Hygiene of 1910 in commemoration of the first centenary of the May revolution of 1810, under the patronage of His Excellency, the President of the Argentine Republic, will be held May 25, 1910, in Buenos Ayres, Argentine Republic.

Dr. Charles H. Frazier (Philadelphia, Pa.) is chairman and Dr. Alfred Reginald Allen (Philadelphia, Pa.) is secretary of the committee for the United States.

The Congress has been divided into nine sections, each section being represented in the United States by its chairmen. The official languages of the Congress will be Spanish and English.

Papers may be sent direct to the chairman of the particular section for which they are

intended, or to Dr. Alfred Reginald Allen, secretary, 111 South 21st street, Philadelphia, Pennsylvania.

"CLEAN OUT, CLEAN UP"—WHERE DIRECTIONS WERE FOLLOWED TO THE LETTER

As I read in the *Helpful Hints for the Busy Doctor* a little article entitled, "An Experience with Carbenzol," my memory is forcibly taken back to a patient with whom the maxim, "Clean out, clean up and keep clean," was applied literally. I was called six miles to see William W., age 73, a retired quaker preacher. He was a man who took everything told him as gospel truth. I found him with a coated tongue with the imprints of the teeth, abdomen distended with gas, bowels not active, engorged liver, no desire for food, urine scanty and highly colored, extreme soreness in the muscles, and the mind as if a cloud were hanging over it.

My diagnosis was autointoxication, following retained fecal matter.

The best I remember, the treatment was calomel and podophyllin in doses to effect, with the sulphocarbolates. The next morning a large dose of magnesium sulphate was to be taken with "lots" of water.

On retiring from his room, I said, "William, don't eat a thing until I get back, which will be tomorrow afternoon, just at 3 p. m."

"Say, Doctor!" he asked, "how much water does thee say a 'lot' of water is under the circumstances?"

Jokingly I said, "O, a gallon will do," thinking he would perhaps drink a pint.

In twenty-four hours I returned to my old friend and patient, finding him much better, with skin moist, tongue clean, mind clear, no distention of bowels—in fact, to my surprise, every condition was as we would want to find it.

"William," I said, "you are much better today."

"Yes! but I did not follow thy directions."

Of course I readjusted my glasses, tilted back in my chair ready to give him a professional scolding for not following directions, when he had placed his case confidingly in my care.

"Now," said I, "what have you done and why?"

"Well," responded my aged friend, "thee told me to drink a gallon of water, and for the life of me I could not get but three full quarts down me."

For a short time I could not think of a word to say, only—

"You made an effort to obey instructions!"

"Yes, and I am well."

After this effective "clean out, clean up and keep clean" he remained well until he had received the final summons, when he just rounded his four-score years.

L. J. BALDWIN.

Westfield, Ind.

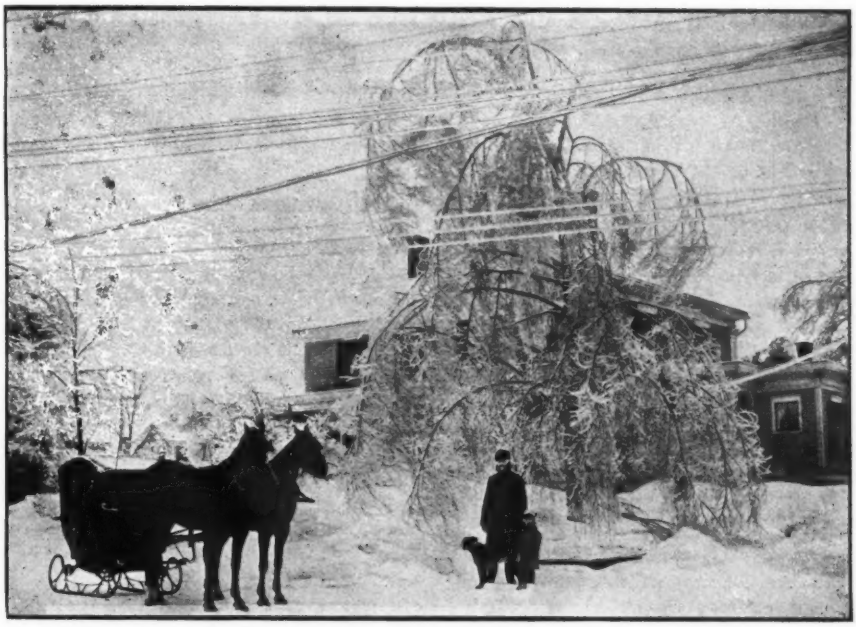
[The good old preacher was evidently a godly man, for he piously practised the maxim that "cleanliness is next to godliness." Isn't it wonderful what a marvellous change is often effected in the condition of a patient by merely getting the alimentary canal clean—*thoroughly* clean.—ED.]

A GOOD FRIEND AND HIS WINTER OUTFIT

I have taken THE ALKALOIDAL CLINIC (now THE AMERICAN JOURNAL OF CLINICAL MEDICINE) almost continuously since 1897. I dropped it for a few months, then ordered it again, and was happy once more.

By the way, I wonder if Dr. Waugh remembers the "yokel" who called at his office one night in Philadelphia, in 1888, asking for an endorsement of his diploma, just received from the Long Island Hospital College, so that he could practise medicine in Pennsylvania. Well, Prof. Waugh asked me whether diphtheria was primarily a local or a constitutional disease, and how to treat a case of pneumonia. I think if I had answered the second question as Dr. Waugh now thinks he never would have given me the signature and letter I had gone to get. However, I got it!

I practised medicine in Pennsylvania a while, then returned to my native state and



DR. STROBEL AND HIS CUTTER

county. I have been here ever since, and am what my friends call a success. I enjoy the work, the scenery and the work in general. Within twenty-five miles there are scores of beautiful clear-water lakes in the woods, *not* famous for belonging to New York millionaires, but the "real thing" just the same. I hie me to them to fish, quite often.

The cutter shown in the picture which I am sending you is a dandy. It is put out by John E. Hobbs, North Berwick, Maine. Write him, brothers, if you are thinking of a new cutter—and this is a good year for sleighing.

C. G. STROBEL.

Dolgeville, N. Y.

[It's pleasant to have these recollections stirred up once in a while—and I am glad that the recollection is also a pleasant one for Dr. Strobel. Yes, we all know a good bit more about pneumonia—and other things as well—than we did in the good old days.—ED.]

"HEALTH AND HAPPINESS"

Those are two things that everyone wants, but unfortunately in the chase for them the individual is too often led into all sorts of follies and persuaded to take up with all kinds of bizarre beliefs. The magazines which have made it their mission to teach health too often are but the mouthpieces of crack-brained or self-seeking men, who have defamed the medical profession and are constantly doing it (or trying to do it) almost unbelievable harm. We are glad to say that there is at last a journal in the field which purposes to do this work and at the same time stand behind the doctor. This journal is *Health and Happiness*, published by the Dickim Publishing Company, Ravenswood Station, Chicago. With the January number there is a radical change in its editorial staff, which is now headed by our old friend, Dr. George F. Butler, in association with the Rev. A. H. W. Anderson. From this time on we expect to see it simply *hum*.

In the January number, now in press, here is the first of a series of articles by Dr. Abbott. This series, which will be continued throughout the year, will discuss the relations of the doctor to the layman. In this series Dr. Abbott will handle the fads and follies of the day without gloves, and show by contrast what the doctor is doing for the people, and what he can do when he can have their support. It is the purpose to supply reprints of these articles for distribution. In this number there is also a beautiful exposé of Christian science, by Dr. Anderson. It throws a strong light on something that most people do not see clearly. Every physician should read it. Dr. Butler's strong editorials move along cognate lines, and will most assuredly set people thinking.

Health and Happiness deserves your support. Subscribe for it and leave the copy in your reception room. Interest your local clergymen in it. Get it into the hands of your patients. Many of them need a strong tonic for their beliefs, just such as it supplies. The subscription price is $2.00 a year.

"Never put off until tomorrow what you *should* do today!"

LOBELIN SEEMINGLY HELPFUL IN INGUINAL HERNIA

It was in the latter part of last June that a man asked me to see a case at a distance of about four miles from my residence. But as I was suffering from sore throat and it was raining heavily, and I was obliged to go to the sea coast, I could not comply with the request of the man. In a village like this no conveyance is available. I therefore advised the man to seek other aid. I explained the serious nature of the case to the friend of the patient and that immediate aid was necessary. But he would not understand and insisted upon my giving some medicine at least if I could not go to the patient.

From the history I could gather that the patient for several years had been subject to reducible inguinal hernia. The attacks came and passed away within a few hours. This time the attack had persisted for three days and the man was in great agony. In order to satisfy the messenger I gave him one dozen granules of lobelin, 1-12 grain, directing him to administer to the patient one granule every one-half hour till relieved.

After three or four days the man returned with great joy bringing six or seven of the granules back with him. He handed over the granules to me saying that hardly five were given when a sudden fit of colic came on and with it the patient passed a copious stool and he felt all right, and he was now attending to his business. The patient is a fisherman by occupation.

I cannot say whether the favorable result was brought about by the drug or was spontaneous. I regret very much that I could not watch such an interesting case personally owing to the illness from which I was suffering.

SHANKER CONOJIF.
Malvan, Dt. Ratnageri, India.

[Your patient was certainly very fortunate, Doctor, in being relieved so promptly. I do not doubt that the lobelin helped in overcoming the muscular spasm through which the hernia was retained, but I should nevertheless be afraid to trust to any medicinal agent in the management of such a purely mechanical condition. This is a case for radical measures.—ED.]

DISTANT INFECTION ATTRIBUTED TO OZENA

Castex reports some facts of distant infection in patients with ozena. In a woman 40 years old he observed submaxillary and carotid adenopathies, while in a young man he noticed digestive troubles. Also in different patients afflicted with ozena he noticed cerebral and cephalic troubles, such as cerebral torpor, etc., etc. The improvement of the nasal fossæ was followed by the amelioration of these corresponding divers complications.—*La Medicine Orientale*, 1909, p. 242.

CLINICAL · MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

PART III—LESSON FIVE

INFLUENZA (GRIP)

GENERAL CONSIDERATIONS

The first epidemic of this disease of which we have positive knowledge originated in Italy, in 1173. It spread from there to Germany, and finally to England. The disease has been well recognized since the fifteenth century. The last pandemic started in Bokhara, Turkestan, in May, 1889. From thence it spread to St. Petersburg, Berlin, Paris, London, and finally throughout the United States, reaching this country in December, 1889. According to the last United States census report, 16,645 deaths from influenza occurred in this country during the year 1900, and over 50 percent of these victims were more than 60 years of age, while many were under five. This figure probably is far too low, owing to the fact that many cases are not recognized, the cause of death being reported as bronchitis or pneumonia. Failure to recognize the disease is very common. Some claim that not more than 20 percent of the cases are recognized except in times of epidemic. (Washbourne and Eyer, *Lancet*, Dec. 20, 1902.)

Following the pandemic of 1890, Pfeiffer, of the Hygienic Institute of Berlin, reported the discovery, by himself, of the influenza bacillus. (*Deutsche Medizinische Wochenschrift*, 1892, *No.* 2.)

The disease is more prevalent in winter and spring, especially during the months of March and April. The incubation period is rather short, from two to six days. No age is exempt, but the disease is especially fatal before the age of 5 and after 60 years. It is more frequent in those who live or work in ill-ventilated, over-heated rooms or factories. Outdoor workers are much less subject to the disease.

Symptoms.—Influenza usually is ushered in by a chill, followed by fever, prostration, neuralgic pains in the head and extremities, then coryza and cough in the catarrhal form; myalgia is a frequent symptom. Many patients exhibit constitutional symptoms simulating those of typhoid fever. Hemorrhages are frequent and are due to the absorption of toxins. Serious epistaxis is common; this may be from both nostrils, but occurs more frequently from the right. (Breton and Rollet, *Gazette des Hopitaux*, Feb. 9, 1904.)

Complications.—The more prominent among these are, diffused bronchitis, catarrhal pneumonia, even croupous pneumonia, pleurisy, endocarditis, otitis media, neuralgia, anemia, etc. Nephritis frequently oc-

curs during convalescence. It has been asserted that the powerful depressing influence of the influenza-toxins upon the nervous system is a factor in the increased number of suicides. (Jelliffe, *Philadelphia Medical Journal*, Dec. 27, 1903.)

Diagnosis.—W. Stekel (in the *Klinisch-therapeutische Wochenschrift*, Nov. 2, 1902) describes a diagnostic sign of considerable value as follows: In mouth, gums, pharynx and nares are to be found small, yellowish white spots, in size from a pinhead to a split pea, raised above the surrounding mucous membrane. These cannot be rubbed off.

The presence of an epidemic and the finding in the characteristic clear, viscid, yellowish green mucopurulent sputum or nasal discharge of small bacilli with round ends and no spores, resembling diplococci, usually is sufficient.

The influenza bacilli stain with difficulty. They are Gram-negative. The best results are obtained by the use of carbol-fuchsin in dilution of 1 : 10. This stain requires from three to five minutes. In ordinary coryza there are usually very few bacteria present. The influenza bacilli are mostly found in clumps, free in the mucus, during the attack, and also during convalescence mostly in the pus-cells.

The bacilli are not very resistant; they die in thirty to forty hours if dried at room temperature.

The infection probably is spread directly through the fine droplets of mucus discharged during coughing and sneezing.

In many cases influenza bacilli produce a pseudomembrane on the tonsils simulating that of diphtheria. They often remain latent in the lung for months, then suddenly become active, producing an acute attack. Tuberculous patients especially may carry them for years.

Immunity is transient and, as in pneumonia, a second attack is the rule. Most animals possess a natural immunity. So far no serum of value has been produced for the treatment of this disease.

The blood does not show the characteristic picture of an acute infection. There is an absence of leukocytosis, and no neutrophilia. Leukopenia is the rule, the leukocytes averaging from 3000 to 6000. This is of value in excluding pneumonia and rheumatism, but the same blood picture is found in tuberculosis and typhoid fever, though the latter can be excluded by the Widal reaction. When complications arise, a leukocytosis with a neutrophilia replaces the leukopenia.

In children catarrhal symptoms are not as common as in adults. Enlargement of the cervical and submaxillary glands is the rule. The fever is irregular and absent at times. It is often subnormal, especially in infants. The prostration is out of proportion to the other symptoms and may be extreme from the first. Nephritis is not frequent in children. (Kellogg, *Medical News*, Sept. 10, 1904.)

Prophylaxis.—Isolate the patient; disinfect the sputa and handkerchiefs soiled with nasal discharge. Preventive measures for the well include ventilation; the admission of sunshine into the room; hygiene of the mouth and nose, especially in children; exercise in the open air; the avoidance of stimulants as well as of overeating. (*Canadian Journal of Medicine and Surgery*, Dec., 1903.)

J. Favil Biehn.

Chicago, Ill.

THE TREATMENT OF INFLUENZA

It has been very commonly observed that those are least able to resist an epidemic influenza whose general health is below the normal, and particularly those already affected with catarrhal troubles of the respiratory tract. In time of epidemics, therefore, maintenance of a stage of good general health places the individual in the best possible condition for successful resistance. This fact, however, has only relative significance, as those even in the soundest bodily vigor are attacked but too often. The healthy man, therefore, will diminish his risk of infection by holding aloof from persons already affected and from localities in which the disorder especially prevails. He should at the same time neglect no meas-

ures calculated to maintain his general bodily health.

Isolate Your Patients.—Influenza-patients should be separated from all intercourse with all persons not necessarily dependent upon them. To effect this, isolation should be effected much as with the ordinary contagious fevers. It is doubtful, however, whether equally vigorous measures need be adopted. At all events, it has not been shown that in a case of influenza there is the same danger of immediate contagion, and in our present stage of knowledge the segregation of attendants and the disinfection of utensils, clothing, etc., hardly seem necessary. For practical purposes it will be sufficient that the patient be confined to a room that only the attendants are permitted to enter, and the ventilation of which will, so far as possible, prevent the dissemination of its atmosphere through the house.

Hygiene and Diet.—The patient should be put to bed and kept in bed for two or three days. In case the fever runs high, he should not be allowed to leave bed until his evening temperature is reduced to below 100° F., nor to go out of the house until the evening temperature has remained normal for at least two days. There will be less danger of complications if this regimen is followed out.

The severity of the disease and the danger of serious complications should be fully impressed upon the patient so that he may readily acquiesce in these methods. He should be told that if he does not follow the physician's advice implicitly he does so at his own risk.

The diet should be bland and easily digested, but not necessarily restricted, except for special indications. The food from the first should be highly digestible and given in small portions at frequent intervals, with digestants. It is best to give food every four hours. This should consist of underdone beef, fish, oysters, chicken, turkey, lamb, venison, quail, squab, rabbit (broiled, roasted or stewed), stewed terrapin or turtle together with rice, which are well suited for the four-hour meal, while at the two-hour intervals may be given a bowl of clam or other broth, rice, cold consommé, junket, freshly pressed fruit juices, raw eggs, coffee, tea, chocolate or cocoa made with milk instead of water. A dose of one of the papaya derivatives, or of acid and pepsin, is usually required at each feeding.

The mouth and nasal passages should be frequently sprayed or washed with an antiseptic solution. This disinfection of the catarrhal discharges, particularly the bronchial, is necessary.

In considering the treatment of the attack, the cases may be grouped under three heads. First, mild or rudimentary forms, second, cases of medium severity; third, severe forms. In addition there is the treatment of the stage of convalescence as well as of possible complications.

The Mild Cases.—In mild forms little save hygienic management is necessary. The patient should be put to bed, be given a light, nutritious diet consisting of milk, eggs, rice puddings, vegetables, fruit juice, cooling drinks (or hot ones if he prefers them), effervescent mineral waters such as vichy, also lemonade or orangeade, if the patient likes either of these. Alkaline drinks are quite as essential in influenza as in many other infectious diseases.

The intestinal canal should be cleaned out with a few doses of calomel and podophyllin followed by saline laxative, avoiding, however, extreme purgation, cleansing the bowels, nevertheless, quite thoroughly and keeping them open with salines. In the mild cases stimulants may not be necessary, although in the majority it is well to give strychnine or brucine in appropriate dosage; if there is much headache, a few moderate doses of acetanilid will serve to relieve it and to reduce the temperature. Monobromated camphor and zinc valerianate often will quiet the headache, and these are much safer than any preparation of acetanilid. To overcome the languor and debility which often are very marked there is nothing more successful than strychnine.

The general management of cases of medium severity is the same as in mild cases. While in these cases the patient does not have much desire for food, he should

be urged to eat with regularity. He should receive some light liquid nutritious diet every three hours, during the febrile period. He should not be allowed to leave his bed until convalescence is well advanced.

The medicinal treatment, for the most part, is simple and symptomatic. There is a marked absence of tone throughout the body, a degree of debility out of proportion to the other symptoms present, which will require more or less tonic treatment. There is also a good deal of muscular pain. The profound depression of the vital forces, the tendency to death, the enervation of all the faculties, mental and physical, may be said to constitute the fundamental characteristics of all epidemics of influenza. These symptoms are not so pronounced in cases of medium severity as in the more severe ones, but they are characteristic of all forms of influenza.

For this condition of lowered vital force and depression there is no remedy to be found among the nerve stimulants equal to strychnine, as it directly combats the atonia. It should be given to produce tonicity and repeated sufficiently often to retain the tone required. The arsenate is usually preferable.

In many cases of influenza, characterized by profound depression, except for alcoholics, I like brucine, believing that it is less prone to exhaust the nervous irritability, while acting more quickly than strychnine. Here let me say that there is a marvelous diversity in these cases, for some will require as much as 1-20 grain of strychnine to produce tonicity, while others respond quickly to 1-67 grain of brucine, which is a much weaker alkaloid. It is important to get the effect with the smallest dose possible, thus avoiding exhaustion or irritability.

When there is a demand for a weaker and less dangerous agent, one that may safely be put in the hands of children or ignorant people, berberine is indicated. This is a toner, an appetizer, and is well suited to convalescents. All of these should be given in watery solution to assure their full effect upon the respiratory nerves.

Neuralgic Pains.—If neuralgic pains persist or recur periodically, the quinine salts should be selected, especially the arsenate. Atropine is required when profuse sweating with headache or neuralgic pains are present. If the mydriatic dries the mouth unpleasantly, or affects the head, agaricin may be substituted in doses up to 1 grain.

Cocaine is especially indicated in nervous apprehension, and when this causes insomnia, when fear of death is a prominent symptom, cocaine and the valerianates, with free purgation, are indicated.

The bromides are useful in early headaches, also for insomnia, delirium of debility, restlessness. Quinine, Dover's powder and camphor are also of great use to relieve the neuralgia and myalgia.

If the pain be so intense as not to be relieved by the internal administration of any of these drugs, it may be necessary to administer morphine subcutaneously. Aspirin is also of great value to relieve the muscular pains, at the same time reducing the temperature.

For the Fever a combination of aconitine, strychnine arsenate and digitalin will usually suffice, and by equalizing the circulation these remedies may aid in ameliorating the pain. It may be necessary sometimes to resort to some of the synthetic antipyretics, of which phenacetin is the safest.

If the ataxic type of fever be present, the temperature may fall enormously, with symptoms of collapse, when antipyretics are given, even in quite small doses. In that case it is well to give monobromated camphor and zinc valerianate. The latter also aid in controlling the insomnia which is so often a troublesome symptom. Sleeplessness may, however, demand other and more potent treatment, such as sulphonal, veronal, etc. Should the temperature reach 103 degrees, cool sponge-baths may safely be given at intervals of two or three hours.

The Local Catarrhal Conditions, such as coryza, laryngeal and bronchial irritation, bronchitis, etc., must be treated according to the special indications presented in individual cases. In atonic conditions of the respiratory tract, with free secretion and diminished sensibility, sanguinarine is

an efficient remedy, stimulating the mucous membrane and causing freer coughing. When the cough is dry and irritating at the beginning of the attack, emetine will favor a freer secretion and lessen the irritability. This same drug may serve a good purpose also when patients are definitely determined to go outdoors too soon, for we must remember that no small portion of the deaths from influenza occur among those who prematurely leave the house and take cold.

As the acute symptoms subside, a very irritating cough baffling treatment often remains. Morphine and codeine check it, and lobelin may relieve if the membranes are dry, while for bronchorrhea we may select eucalyptol, menthol, myrtol, thymol, or myrrhic acid.

A very peculiar and aggravating catarrhal bronchitis often follows influenza. There is usually very little elevation of the temperature—a degree or so at night—but there is cough and a peculiar sound at inspiration, made by the flapping apart of the agglutinated air-cells. This noise shifts from one part of the lung to the other under the influence of gravity, and it often taxes the skill and patience of the physician exceedingly. My own experience has been that it yields best to sanguinarine nitrate and strychnine arsenate. Hyoscyamine may be added if there is much irritation.

An excellent cough combination, particularly adapted to that class of cases in which there is a marked tendency to purulent degeneration of the mucous secretion is morphine hydrochloride, gr. 1-200; pilocarpine hydrochloride, gr. 1-200; calcium sulphide, gr. 1-40.

Burggraeve gives calcium sulphide for the infective principle and to facilitate expectoration, aconitine and veratrine for violent continuous fever, and quinine arsenate or hydroferrocyanide for the periodical fever.

Castro outlines his method of treatment as follows: The symptoms indicate a toxic condition. Excellent results are obtained from quinine, indicated as the dominant. Quinine hydroferrocyanide also soothes respiratory irritation better than opiates. The intolerable headaches with photophobia, red conjunctiva, ringing ears, also show cerebral congestion and are controlled by aconitine, which moreover moderates the fever and slows the pulse. Give 1-6 grain every quarter hour or as needed. The bronchitic form with dry cough demands calcium sulphide, 1-2 grain every hour, with 3-67 grain of codeine until a soothing effect has been secured. For the congestion give digitalin, 1-67 grain, every hour until the heart action is regular. For the prostration, strychnine arsenate to secure complete resolution; in the old and very feeble, strychnine hypophosphite, grain 1-134 to grain 2-134 every two hours. As a lung tonic and for reducing cough, 2-67 grain of apomorphine every two hours. For anorexia, sparteine and sodium arsenate, a granule each four to six times daily.

Always give the dominants in addition to the variants throughout, even giving the former every quarter hour for a long time and with the exclusion of the variants if need be.

In the Gastrointestinal Form of Influenza, Castro gives the saline laxative to clear the alimentary tract, followed by morphine hydrochloride, in small doses every hour, or if not well borne, he substitutes brucine in the same number. In many cases there is a tendency to chronic diarrhea, the relaxation especially manifesting itself in the intestinal mucosa. If in the stomach, the oxide of zinc is the remedy; if in the bowels, hydrastine. The latter is a dryer, the checker of mucus. It is often combined with berberine to advantage. Indeed this is the drug to be preferred.

With the foregoing, we rank physostigmine. It is a tonic to the bowels and a pain-reliever as well. The indications for its use are frequently met with in influenza. The severe pain demanding anodynes found in conjunction with intestinal atony are among the most frequent pathologic combinations confronting us. It is usually enough to give 1-2 milligram of the physostigmine, repeated every four hours, but I have given as high as three times this quantity at a dose. It is necessary to note carefully the condition of the kidneys before

employing this drug, since, if elimination be impaired, toxic symptoms may follow the administration of even moderate doses.

In the gastrointestinal disorder I give a few doses of saline laxative followed up by the sulphocarbolates every two hours. For the fever nothing answers so well as aconitine, digitalin and strychnine arsenate, as the tendency to debility is present from the first and the unguarded antipyretics are too liable to induce sudden and alarming collapse. For the pulmonary symptoms, the violent headache and other pains, this triad has answered well in combination with hyoscyamine and caffeine valerianate, to be taken in small doses every quarter to half hour until relief.

Gastric irritability has been promptly relieved by silver oxide and cerium oxalate.

Delirium is quickly controlled by hyoscine, a granule every ten minutes till effect.

As soon as the fever has fallen, the pulmonic symptoms become prominent; sometimes the dry, irritating cough remains, when the zinc and codeine tablet does nicely, followed by malto-nervine, which has done me good service for years.

Bronchorrhea.—Many times cases degenerate into a troublesome bronchorrhea with profuse sputa and evidence of deficient vitality in the pulmonary tissues. Here I have combined sanguinarine and cubebin with much benefit. In all cases the patient does well if left upon nuclein, strychnine arsenate and capsicin, every half to one hour until effect, then enough to maintain this. Some cases require large quantities, but it should be given in small and frequent doses, otherwise the irritability is exhaustive and sudden collapse or toxic symptoms ensue. Iron and alcohol seem to be useless. Hydrastine appears to restrain the profuse sweating better than atropine. Of course the feeding is by small and frequent quantities of rich, easily digested foods.

The synthetic antipyretics are too depressing for the cases I am now seeing, but the saline laxative, intestinal antiseptics and triads do all that is claimed for them.

Relief of Pain.—Chloroform liniments, chloral-camphor, and belladonna plaster are useful locally. Cannabis indica in doses of 1 centigram (1-6 grain) of a good extract sometimes gives great relief, especially when there is gastrointestinal pain.

If the coal-tar derivatives are employed they should only be given in small doses. The zinc or caffeine valerianates are invaluable in ataxic febrile states. For the cough I prefer inhalations of thymol iodide, in a petrolatum spray; only rarely I give small doses of codeine, say, 1-2 centigram (gr. 1-12). But for the irritative laryngeal cough of convalescence the best remedy is yerba santa given to effect. Counterirritation over the right pneumogastric nerve in the neck usually moderates the cough. Complications and sequels require their own treatment, the tendency to debility and collapse being ever borne in mind.

Now to recapitulate briefly, I wish to reiterate some remarks relative to the treatment of influenza which involves the upper respiratory tract. Many of the patients present themselves with intense headaches, backaches, slight fever, a sense of great exhaustion and mental depression, tremulous tongue which may or may not be coated and indented, suffused eyes, flushed cheeks, loss of appetite, and sometimes nausea. In some cases there are sneezing, nasal stenosis and hydrorrhea. The turbinate bodies are red, sensitive, and swelled to such a degree as to occlude a view of the deeper portions of the nasal fossa, and the inflammation may invade the eustachian tubes and middle ear.

This Catarrhal Condition frequently extends so as to involve the throat and bronchial tubes. Then the columns of the fauces appear intensely red and the tonsils may become inflamed or ulcerated. Occasionally the epiglottis and the interior of the larynx may assume a hyperemic appearance. Some of these cases present a mild inflammatory action in the mucous membrane lining of the larynx with small zones of hyperemia of the vocal cords, and the trachea and bronchia are involved to the extent of a mild catarrhal inflammation. These attacks are best managed by putting the patient to bed as the first step to insure

success in the treatment and to prevent the disease from terminating in something worse—pneumonia.

When the bowels are constipated they should be cleared out with a saline laxative. These patients often have a uric-acid diathesis, or as I remarked before, an acidemia; alkalis help to free the blood of this irritant. If a fermentative process is going on in the alimentary canal we need intestinal antiseptics, as well as a depleting of the engorged blood vessels. In the event of considerable fever and headache the defervescents or the dosimetric combinations are indicated. If much headache, the remedies recommended above.

Rheumatic Symptoms.—It is especially necessary to influence any rheumatic symptoms that complicate the attack.

For this reason the salicylates or aspirin along with alkalis are needed. We should not forget that many of our patients are inordinate eaters of meat and sweets, and that the resulting excess of uric acid stored in the body may be set free at such a time and give rise to rheumatic pains and soreness of the throat and muscles of deglutition. Then the alkalis and salicylates act charmingly. It is not an infrequent occurrence to find that the soreness of the throat and especially the pain in swallowing are entirely out of proportion to the amount of inflammation discernible in the pharynx. Then palpation of the muscles of the neck and pressure behind the angle of the lower jaw may reveal great tenderness. These cases call for salicylates, alkalis, and either the defervescent or the dosimetric granules. And don't forget the alkalis!

If the strength is greatly reduced, strychnine arsenate and small doses of quinine may be administered in moderation, provided there is no pathological condition of the ears. We should not forget that quinine and salicylic acid produce a congestion of the middle and internal ears and that a certain proportion of influenza-cases are complicated with ear-lesions which would be aggravated by the administration of such remedies. There are certain alkaloids that will afford the patient speedy and certain relief.

For the Relief of Pain.—While the body is being put in the most favorable condition for the elimination of the poisonous principles that originate the disease, and in the best fortified condition for resisting the onset of the attack, by the measures already detailed, we are able to minimize and abort the attack.

We have found that while the suffering formerly extended over a period of from ten days to three weeks, we are now able to limit the most serious symptoms two or three days. I refer to a combination of morphine, atropine and caffeine, in the proportion of 1-12 grain of morphine with 1-600 grain of atropine, and 1-6 grain of caffeine. The morphine relieves the pain and nervous irritability, suppresses the excessive nasal secretion and stimulates the circulation. The atropine elevates the tone of the blood-vessels, quickens the pulse, decreases all the secretions except the urine, stimulates the respiratory center, counteracts the constipating effects of morphine, while the caffeine stimulates the nervous centers of the kidneys and diminishes the tendency of the morphine to provoke nausea.

Danger of Depression.—In the very severe forms of influenza the general management is similar to that of the one already recommended, save that we should be careful about giving any drug which exerts a depressing effect, as the cardiac as well as the respiratory forces must be conserved. Should there be sudden cardiac failure it must be met promptly with the various forms of stimulants, including strychnine, digitalin and cardiac tonics. Aromatic spirit of ammonia is usually borne well and may be administered with advantage. Strychnine must be given in full doses, hypodermic lly, every third or fourth hour. The various inflammatory complications that may arise must be treated as under other circumstances.

Complications and Sequels are frequent and numerous; every organ and tissue of the body may become affected with the influenza or its bacilli. Many complications cannot be prevented by even the greatest care and the best treatment. Some, however, are due to carelessness, over-

exertion and secondary infection, all of which must be guarded against. Forchheimer says that the number and intensity of the sequelæ of influenza are altogether out of proportion to the intensity of the attack. A severe attack is always, a mild attack usually, followed by some sequel. The most common is debility, frequently extreme and of great duration.

Prophylactic measures are of great importance. Strychnine, cinchona preparations, iron, are all indicated in the proper cases. Above all, adequate feeding, if necessary overfeeding, should be insisted upon. Physical and psychical rest are of great importance. Care must be taken not to suggest invalidism. The sequelae on the part of the nervous system are very common. They are found affecting the brain, the spinal cord and the peripheral nerves, due both to anatomical and functional causes. The frequency of neurasthenia and suicide after influenza have been frequently commented upon. It would be interesting to know whether neurasthenia or psychoses could be prevented by proper treatment, as both occur where there is a temporary or permanent predisposition. Possibly influenza *per se* is to be looked upon as due to a temporary predisposition, but as yet this has not been definitely established.

Under all circumstances, when such predisposition exists, the utmost care must be taken in the treatment of the patient; the early and long-continued use of tonics, the careful watching of the food in quantity and quality, the enforcement of a long absence from all occupation and exertion, have in some instances seemed to be beneficial. In more than one instance I have been able to prevent an attack of neurasthenia in a patient who had become liable, the result of his having suffered from neurasthenia after a previous attack. Nearly all existing diseases are made worse by influenza, so that a patient with cardiac disease, nephritis, or disease of the respiratory apparatus should be especially watched as to the already existing affections.

Convalescence.—In all grades of disease the convalescence from influenza demands most rigid supervision and the greatest injuries to patients of this kind come from going out too soon. Usually the temperature is subnormal for several days, due to the weakness of the patient, and so long as this condition remains the patient is highly susceptible to a chill. Therefore it is a good rule not to allow exposure to external changes of temperature until the temperature has been normal for several days.

The diet should now be more liberal, and a tonic, preferably the triple arsenates with nuclein, may be administered and continued until restoration of the patient's health has taken place. In every way possible exposure to reinfection during the period of convalescence should be avoided.

GEORGE F. BUTLER.

Chicago, Ill.

THE ALKALOIDAL TREATMENT OF INFLUENZA

In influenza we have a two-fold indication, to combat the specific cause of the malady, and to meet the often exceedingly dolorous symptoms that demand relief at the quickest possible rate. We therefore consider this disease from the classic standpoint of the dominant and the variant treatment.

Against the Bacillus we may oppose but two remedies directly, namely, calcium sulphide to destroy the microbes, and nuclein to reinforce the leukocytes. Both of these agents are still in the experimental stage, although many who have employed them will resent this statement and exclaim that with them they are fully established. I refer here, however, to the body of our profession. In practice, give a centigram of the sulphide and repeat it every half hour until saturation is denoted by the sulphurous odor of the perspiration; then give it every hour or two to sustain this condition, until the germs are dead. Saturation may be safely maintained for six weeks if necessary; and those who have used this method most freely are loudest in their asseverations that no microbe can possibly withstand the treatment nearly this long. The calcium sulphide is harmless and does not interfere with any

other treatment. But be sure that your sulphide is of the full U. S. P. strength, which it rarely is. Further, do not administer it during the period of acid digestion.

Nuclein occupies similar ground—those who have used it most freely believe in it most strenuously. It also is harmless. Give 10 minims as a dose, up to six times a day, hypodermically or under the tongue; or if you want to be original give it intravenously, half a dram a day, well diluted. One thing is certain: it increases the number and the activity of the leukocytes, and if these be also phagocytes there is reason for the treatment.

Debility.—Only the prime necessity of opposing the cause of any malady excuses us in placing debility in the rank of the variant indications, because it is invariably present in every form and case of influenza. Moreover it is a universal weakness, extending to every vital function. We therefore oppose to it the universal incitor of vital function, strychnine. We select the arsenate, because arsenic has the power of imparting to the endangered red blood-corpuscles a certain degree of resisting power against the invading microorganisms; it also is a vital incitor of no mean power; it promotes fatty degeneration, and acting on the newly forming and unorganized products of disease, tends to liquefy them, and to favor their quick absorption, hence it shortens the period of convalescence.

But here comes in a clinical observation of such vital import that we must pause and give it the fullest emphasis: the vitality is universally depressed in influenza, and extends to the reaction against or with drugs. So only the smallest doses of the strychnine arsenate should be administered, and these must be closely watched, lest we exhaust the little vitality remaining, and have the depression increased, instead of arousing a reaction. I have witnessed alarming depression induced by strychnine in doses of one milligram. The dose of 1-2 milligram is here a maximum instead of a minimum. Better give 1-4 milligram (1-250 grain) only.

With many patients—children, women and weakly men—it is better to employ, in place of strychnine, the milder brucine, in doses of 1-2 milligram, corresponding to about 1-500 grain of strychnine arsenate. These small doses may be repeated very frequently, since the alkaloids are very quickly absorbed and manifest their activity within five minutes or less on a comparatively empty stomach. The doses are, as an average, to be repeated every fifteen minutes until we have secured all the vital reaction we want, or all that the patient can afford; then repeat often enough to sustain this effect. Use these remedies recklessly, and you may quickly get into difficulty; employ them skilfully, and you soon perceive why old Burggraeve termed strychnine arsenate his "war-horse."

Relief of Pain.—The next indication will be strenuously designated by the patient as the primary and most imperative one—the relief of pain. The intensity of the influenzal pains is diagnostic. Any of the anodynes may give relief, and many a good clinician pins his faith on some combination in which the coaltar derivatives hold first place. But the overpowering weakness indicates the necessity of selecting an anodyne that does not debilitate—and here is where we have use for hyoscyamine. The same rule as to minute dosage is here urgent: give 1-500 grain of hyoscyamine with each dose of strychnine, but quit the moment the patient's mouth begins to feel dry.

Fever—who has not seen the temperature tumble, under a grain or two of acetanilid, into a collapse that has raised the doctor's hair in fright? Here we rely on aconitine, and give 1-2 milligram, fearlessly, every quarter or half hour until the pulse and temperature are to our liking. If the heart shows any disposition to weaken we can join with each dose one milligram of digitalin, thus enhancing the antipyretic effect, steadying the heart, and restoring a little needed tension to the blood-vessels. Since the full daily dose of amorphous aconitine is 5-6 grain, and of water-soluble digitalin 2 grains, we are still employing here our minute-dose method. But make no mistake as to the efficiency. I am reminded of a

former patient whose husband badly injured his one only coat, and who mended it with hair from her own head so neatly that no sign of the lesion was apparent. Just so nice work in medicine is not always apparent by the violence of the drug-action.

Elimination.—The doctor who has a superstitious dread of veratrine will open his eyes wide when I recommend it in influenza; but there is reason, and there is no peril.

Veratrine is the best of eliminants. Give it in doses of 1-2 milligram, repeated every quarter hour in high fevers, less frequently in milder forms. Besides, these small doses aid the heart by relaxing the coronary arteries and allowing a better supply of nutritive blood to enter; they also stimulate the emunctories, especially the liver and the skin, and thus relieve the system of much depressing toxic material. But little veratrine is needed, as a rule, if we clear the bowel by a daily dose of a laxative saline and regulate the diet properly. Digitalin is the best diuretic here, since the vascular tension is usually low and the renal arteries need an increase of the cardiac impulse rather than relaxation.

It should not be forgotten that in small doses veratrine increases muscular force, For this we rely, however, on caffeine, employing the valerianate in doses of a milligram every quarter or half hour. This also sedates many nervous conditions, and has no slight anodyne power, besides increasing the heart force and renal elimination. The ataxic group of symptoms is peculiarly amenable to this remedy.

The other indications in influenza are innumerable, in view of the protean nature of its manifestations. Many times we find reason for gelseminine, for its rare combination of powers, being analgesic, antipyretic, a spinal and cerebral sedative, with a minimum of vascular sedation. The properties of cicutine hydrobromide as a spinal sedative and anodyne are also frequently in demand.

The Respiratory Form of the disease calls for emetine to stimulate secretion and sedate sensation in the respiratory tract, used in very small doses still—half a milligram of the pure alkaloid being a full dose, more often to be divided than increased. Similar doses of codeine may be given to quiet an irritative cough, a milligram granule being allowed to dissolve on the tongue occasionally.

The digestive faculties may be enhanced by a milligram of quassin, taken in solution to affect the gustatory nerves, before meals; a little hydrochloric acid and pepsin, or at other times papayotin and soda, aid in digesting more food than would be managed otherwise, and with that much more strength is added.

Beware of cold and of cold baths. Hot salt-baths and rubs are useful. Rest is imperative, and the more absolute the better.

During convalescence quinine hydroferrocyanide is the best tonic, a centigram every two hours being an average dose. Eschew alcoholics of every description, then and forever. The debility of influenza is peculiarly liable to beget chronic alcoholism if one once commences its use.

When an intestinal antiseptic is needed the most appropriate is calcium sulphocarbolate, as the reconstructive lime is always needed. Give enough, and this may mean a dram a day.

WILLIAM F. WAUGH.

Chicago. Ill.

PHYSIOTHERAPY IN THE TREATMENT OF INFLUENZA

In the treatment of influenza the one characteristic fact to be borne in mind is the absence of a well-defined type or clinical picture. Every case seems to be peculiar to itself. Only two features seem to be common to all cases of grip, to wit: the tendency toward localized congestions (inflammations) and more especially the great debility which sometimes accompanies and always follows an attack. The therapeutic methods to be employed in the treatment of the disease will have to be adapted to the clinical indications suggested above.

The Importance of an Active Skin.—The attack in the majority of instances is

ushered in tempestuously by a chill, followed by fever. It is excellent practice to begin active treatment by application of some thermo- or hydrotherapeutic measure by which active elimination through the skin can be effected. A steam- or vapor-bath, a dry hot-pack, an electric-light-bath, a cold moist-pack, or even a full hot immersion will answer the purpose. On general principles the dry and nonreactive applications are better because they are safer. The electric-light-bath and the hot dry-pack are probably better than the other methods suggested above. The application should be pushed to the point of tolerance.

A copious diaphoresis should be induced and kept up for from fifteen to thirty minutes, depending on the tolerance of each individual patient. The sweating process should be followed by a dry-rub. The cold-rub is not unconditionally to be recommended. The object is to maintain the skin in a condition of increased functional activity and corresponding active congestion. In proportion to the success we have in keeping up cutaneous activity, we shall be able to lessen the liability of internal congestions.

It is a very good plan to heed the advice of Priessnitz who, after giving a general sweat, applied a continuous dry-rub to the arms and legs and finally to the back, but more especially to the legs. His object was to intensify cutaneous activity in those regions which are furthest removed from the respirafory organs where congestions are most likely to occur. These skin-stimulating procedures should be applied daily and pushed to the point of tolerance. Massage, properly applied, especially in the form of petrissage and effleurage, is a very useful adjunct.

In young and vigorous adults the therapy suggested is uniformly safe and useful. Where there is a fatty heart, or some organic disease, especially of the heart or kidneys, and in advanced cases of pulmonary tuberculosis, the physician should individualize and proceed with caution and circumspection. The employment of reactive methods is not without risk in these conditions. For similar reasons the use of a cold-rub after a sweat is somewhat hazardous.

Muscular and Neuralgic Pains.—If the pains are steady and localized, massage will do a great deal of good. Severe headache, insomnia, functional brain-symptoms are often successfully combated by massage of the head (effleurage). Pressure over the occiput frequently is very serviceable in relieving headache. Pains in the back and in the extremities are likewise amenable to massage. The vibrator can be brought successfully into play. The vibrations should be rapid and fine and followed by massage. Exposure of an aching area to blue light frequently is followed by prompt relief. The galvanic current is useful (positive pole to aching spot, negative pole at some distance). The sinusoidal current applied by means of a massage-roller often works wonders in giving relief. Torticollis should be met by massage of the muscles of the neck. The pain of an incipient tonsillitis usually yields to a Priessnitz compress applied to the neck.

Catarrhal Symptoms.—If the eyes or the air-passages are attacked, "derivation" to the lower extremities should be persistently practised. This is especially imperative when the lungs show signs of irritation. Cold compresses, especially to the chest are of very questionable utility, although some authorities seem to speak well of them. The great objection to a continuous cold application is the possibility of cutaneous vasomotor paralysis, which, for reasons given on a number of previous occasions, is to be avoided. When there is great irritability of the eyes (photophobia, etc.), these should be protected against the chemical rays of light by dark-red glasses. In mild conditions of this kind blue glasses will answer the purpose. The discharges from inflamed mucous membranes should be disinfected and destroyed.

Gastrointestinal Symptoms.—The dietetic regimen should tend in the direction of preventing or alleviating symptoms on the part of the stomach and bowels. Liquid or semisolid food, largely carbohydrate and

sparingly given, should be the rule. The administration of stimulants, especially of the alcoholic variety, should not be unconditionally insisted upon as a matter of routine. In persons who have never been in the habit of taking alcoholic stimulants the administration of the latter is unjustifiable unless there is a distinct indication in a weakened heart. In persons with whom "booze-fighting" proclivities have become a second nature alcohol cannot be dispensed with. In giving dietetic directions it must be borne in mind that the gastric mucosa should be given as much rest as possible. This means frequent feeding, but small quantities at a time.

Colon irrigation is an excellent auxiliary measure, provided the patient is not too much weakened by the physical effort involved in the proper application of this method. The daily application of a hot-pack to the abdominal wall is not merely a very valuable palliative measure, but seems to have a distinctly prophylactic action in forestalling gastrointestinal irritation.

Nervous Symptoms.—In 75 percent of cases the nervous symptoms predominate in one form or another, some of which have already been referred to. During an attack of grip very often the seed of a subsequent chronic malady, not infrequently of the nervous system, is planted.

Depending on the character of the symptom or symptoms, the treatment will have to be systematized. If an autointoxication is the causative factor, eliminative measures are indicated. This is the case in the majority of instances. If the symptom is due to a congestion or inflammation, "derivation" should be practised. The indications for and technic of this greatest of all hydriatic measures we have had frequent occasion to discuss. Many painful conditions of the nerves are considered in the light of a true neuritis, most times, however, erroneously so. Usually they are autotoxic in character and should be treated as such.

Debility and Prostration.—Perhaps the most characteristic symptom of influenza is the extreme weakness which this disease causes. The degree of weakness is apparently out of all proportion to the general aspect of the individual case. To counteract debility, mild stimulating hydrotherapeutic applications should be made, preferably nonreactive in character. The electric-light-bath is useful for this purpose. Vigorous rubbing of the skin and massage should follow the bath. The cold Kneipp-douche to the spine is effective. It should not be used on patients who are naturally weak. Sometimes it is better to apply an alternating cold and hot douche to the spine. Where practicable, the sun-bath should be resorted to on account of its eminently tonic and invigorating action.

Complications and Sequels.—The most common complication is pneumonia. Its prevention and treatment have previously been discussed in the lesson devoted to "typhoid fever." Occasional complications are inflammatory conditions of the heart and cardiac neuroses.

In the treatment of many cases of cardiac neuroses rapid and fine vibration over the entire precordial region has been found a fine cardiac tonic-sedative. In some cases the high-frequency current, similarly applied, will be found equally effective. The continuous use of the ice-bag over the heart should be discarded.

Sequels are phthisis in predisposed persons, brain-symptoms, from slight headache to acute mania (invariably due to autointoxication and usually amenable to eliminative treatment), insomnia (derivation to the lower extremities to relieve intracerebral blood pressure), lymphatic enlargements (galvanism, cataphoric introduction of iodine, gentle massage to encourage absorption), general weakness (nourishing food, fresh air, sunlight, static breeze, high-frequency currents to body-surface and especially to the spine).

OTTO JUETTNER.
Cincinnati, O.

COMMENTS ON THE LESSON

The student will find, in the preceding considerations on influenza, practically everything he requires in order to recognize the

disease and to manage his cases successfully. For the sake of fixing the most important points more firmly in the mind we have thought well to add a brief résumé of the principal points.

It is a pernicious habit of the laity, all too often concurred in by physicians, to call every little cold, cough or coryza by the specific name of influenza, or grip. The consequence is that people attach too little importance to the disease, expect you to overcome the actual influenza in a few days, and hence are unwilling to take proper precautions. A sample of sputum examined bacteriologically, clears up the diagnosis.

Influenza may manifest itself in various forms which can as a rule be classed under one of the four types generally recognized:

1. Respiratory form.
2. Nervous form.
3. Gastrointestinal form.
4. Febrile or typhoid form.

While the characteristics of one form generally predominate, mixed forms occur.

The indications for treatment may be divided into general and special. The general indications are those governing the treatment of any infectious disease, as well as the symptoms common to all forms of influenza. They are: isolation of the patient as far as possible; cleansing applications to the inflamed mucosæ, and disinfection of the discharges; rest in bed; attention to the severe prostration and to the nutrition.

The special indications vary with the type of the disease and include measures to prevent the complications most to be feared. So we must, for instance, in the respiratory type relieve the pulmonary congestion lest pneumonia occur; in the nervous type meningitis is to be feared; the gastrointestinal type may lead to a fatal debility because the powers of digestion, and still more of assimilation, are curtailed particularly and require careful nursing. In the febrile or typhoid form we must be very sure of our differential diagnosis and will do well to treat the cases on the principles governing the treatment of typhoid.

Iodized calcium should be prescribed in doses of from one to three grains every hour, together with four drops of nuclein, on the first symptom, and be followed up by the proper cleaning out, by intestinal antiseptics, and by confinement to the house. In this manner many an attack may be aborted. If this is no longer possible, a plan of treatment as outlined in the preceding papers will prove of value.

In times of epidemic attention to the *primæ viæ*, and occasional doses of iodized calcium together with the obvious prophylactic measures may act as protectives.

The patient, and still more his family, must be fully impressed with the danger of premature rising and exposure. Many a latent tuberculosis has been aroused to activity by a neglected or insufficiently treated influenza and has developed into phthisis. Convalescents from influenza seem to be peculiarly liable to almost any other bacterial disease and must be confined to bed, the room or at least house until fully restored.

This subject is one which deserves careful consideration, and we hope it will elicit free discussion, through these pages, by our students and others.

Next month we shall take up the subject of pneumonia.

We should have many more students registered in the Postgraduate Course. Many are coming in, but we want thousands more. May we not hope for large accessions to our list, while the year is young. Do not forget that a handsome certificate is awarded to everyone completing a year's work.

We wish particularly to call attention to the review of Dr. Juettner's new book, appearing on another page. This is a splendid work, a masterpiece, and every student in the course (as well as everyone interested in physiotherapy) should have a copy.

Typhoid Delirium.—Dr. A. Graves, Mehama, Alabama, in a very interesting paper gives his method of treating typhoid delirium, as follows:

"Given a case of typhoid delirium, my first attention is directed to elimination. If the mouth and tongue are dry, indicating depressed secretory function, I begin with

minute doses of calomel frequently repeated till the mouth begins to show presence of secretion. Then I follow immediately with tablespoonful doses of castor oil, with 5 drops of turpentine, and repeat every two hours, till stools show evidence of the oil, or till two or three doses are given, then follow this with colonic flushing sufficient to clean the colon. In the meantime cold applications are made to the head and the skin is given a warm sponge-bath, and turpentine stupes to the abdomen. This frequently relieves, and always, in every case, benefits. In the cases not so relieved I use morphine and atropine hypodermically, but not till gelseminine has been tried."

Dr. H. A. Simpson of Afton, Tenn., says regarding typhoid delirium:

"When we follow the 'clean-out' method there is little delirium to treat. Where the delirium is an effect from toxins in the system it is best treated with eliminatives and then the intestinal antiseptics. Where there is delirium from nervous conditions of the patient there is nothing better than morphine. Where there is hyperemia of the brain, cold to the head is indicated. The bromides may be used in delirium with good effect. Where there is much vascular disturbance, gelseminine and cicutine act nicely, as well as other vascular depressants."

The doctor also writes in a personal letter the following:

"If you had one of my cases I now have in the same place I now have him, you would hold up your hands and say, 'My God!' This case is in the most unwholesome place for typhoid fever imaginable. This can't be remedied unless you stay there, and stay there you won't. This man had congestion of the lungs, but somehow or other this condition is gone, leaving a simple case of fever. I cleaned him up with calomel and salts, and then gave aconite, belladonna and bryonia for the high temperature, as well as plenty of the sulphocarbolates to disinfect and control the diarrhea. Today his temperature is 99.2° F. at 2 p. m. My treatment now is oil of turpentine and the sulphocarbolates. This condition is good. Diet, milk."

Dr. Fred F. Attix of Lewistown, Montana, always submits excellent papers. He has this to say regarding the treatment of typhoid delirium:

"The delirium of typhoid fever can be avoided by absolute rest, restricted diet, careful and competent nursing and the intelligent use of the 'clean-out, clean-up and keep-clean' technic, aided by the sulphocarbolates. Nervousness can usually be controlled by the valerianates, and headache is frequently relieved by small doses of codeine. Delirium is usually controlled by hyoscine hydrobromide, gr. 1-100. This failing, morphine in small doses is indicated. In alcoholics small doses of whisky are indicated, frequently associated with hyoscine or cicutine hydrobromide, or both. High enemata of normal saline solution will aid elimination by flushing the bowels, kidneys and the skin. Water should be freely given, and sponging and massage are often desirable."

EXAMINATION QUESTIONS

1. What is the final cause of influenza? Give historical data.

2. How can influenza stand in relation to the increased number of suicides, as has been claimed to be the case?

3. How is the influenza-infection spread?

4. Give the principal diagnostic points of influenza, using not more than 150 words.

5. What are the different forms of influenza?

6. Differentiate influenza from common cold?

7. What are the most common sequelæ of influenza?

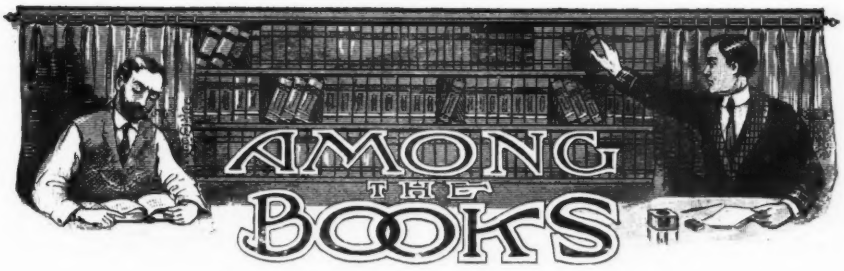
8. Give briefly the general outline for the treatment of influenza as an infectious disease.

9. What are the complications and how must they be guarded against? How do you treat them?

10. Give briefly the indications for and mode of treatment of influenza with alkaloidal remedies.

11. Give briefly the outline of the treatment of influenza by physiotherapeutic measures.

12. What are, in your opinion, the principal indications for treatment in influenza? How do you meet them? Report one case.



JOHNSON'S "SURGICAL DIAGNOSIS"

Surgical Diagnosis. By Alexander Bryon Johnson, Ph. B., M. D., of Columbia University Medical College. Volume I. Wounds and their diseases, Diseases of the soft parts and of the bones, Tumors, Fractures and dislocations, Syphilis, X-Rays, Head and neck, Thorax and breast, Abdomen in general, Peritoneum and injuries of special abdominal organs. With one colored plate and 257 illustrations in the text. New York and London: D. Appleton & Co. 1909. Price, per volume, $6.00.

This work is laid out on a broad plan and the author aims at nothing less than exhaustive comprehensiveness, hence two more volumes are to follow. Of these volume II already is in our hands for review, while the third and last one is promised to appear by next fall. The price of this set of three volumes is $18.00, single volumes not being sold separately.

There is not a country in the world where the mode of life and its activities are so conducive toward producing surgical diseases as is this the United States of America and its outlying dependencies. We will not stop to argue this assertion. Nor is the proposition likely to be disputed that New York City, next to London, is the best place to study surgical diseases. Given a ready mind, studious and penetrative powers of observation such as we believe the author of this big work possesses, and twenty-five years of practice in the city of New York with its incomparable hospitals, there is under the kind divine providence under which we live no reason why such a magnificent work as this one before us should not be produced.

Volume II of the above work treats of: Injuries and diseases of the abdomen and of its contained viscera; the rectum; injuries and diseases of the kidney; the bladder, the prostate, the urethra, the penis, seminal vesicles, scrotum, testis and spermatic cord. With three colored plates and 253 illustrations in text.

BURDICK'S "X-RAY AND HIGH-FREQUENCY IN MEDICINE"

X-Ray and High Frequency in Medicine. By Gordon G. Burdick, M. D. Chicago. The Physical Therapy Library Publishing Company. 1909. Price $2.75.

"No one can read the volume without having much food for thought." This assertion made by the author in his preface is justified, only a few lines further on, where the importance of exact knowledge of physics for successful x-ray work is touched upon. Physicians are all too apt to take up work requiring special study and preparation, without having devoted the necessary time to these, and the consequence is frequent failure and error, and this leads the author to exclaim: "I am convinced that he (viz. the physician) has not reached the higher ideal demanded by the Divine Spirit of Medicine. He is not the great force in our civilization he should be, and he as an individual is alone to blame."

Food for thought, indeed! Even if the little volume before us did not contain, as it does, the practical results and deductions

therefrom, of the author's long and wide experience, even if it did not present, as it does, an excellent working manual for x-ray and high-frequency work, we should feel constrained to commend it on account of the ethical, philosophical and other discussions which are scattered through the text. The book must be read and studied, to be appreciated. Probably no man in this country is more competent to discuss this branch of therapeutics than Dr. Burdick and his book is certainly a masterpiece, well adapted to the use of the general practician.

TWEEDY AND FRENCH'S "MIDWIFERY"

Rotunda Practical Midwifery. By E. Hastings Tweedy, M. D., Master of the Rotunda Hospital, and G. T. French, M. D., late Assistant Master. London, and New York: Henry Frowde. 1908. Price $6.00.

The Rotunda Hospital of Dublin seems to be a large medical institution, one which gives dignity and authority to medical practice, and the two authors, one now, the other formerly connected with this institution, give evidence that they deservedly held so responsible a position. We can therefore assume that the book before us is a well authorized statement of what is the educated obstetrical practice in Ireland, or perhaps in Great Britain. It will be found to differ in some points from the practice in vogue here, and this gives it especial value for the studious practician. The book is indeed thoroughly practical and a reliable handbook for the obstetrician. It contains an appendix of valuable statistical tables and a good index.

BURGESS'S "NEW DISCOVERIES"

New Discoveries in Treatment. Successful Methods to Date. "The Money Crop." Fortune Is Knocking at the Doctor's Door (Dollar Edition). By Dr. W. H. Burgess, author of "The New Field." (Avondale) Chattanooga, Tennessee.

"This little book represents more than a thousand pages of reports and two years of laboratory work. If we set the price too high, you are at liberty to reduce it."

We gave in the preceding the title page in full, not wishing to reduce in the least the author's refreshing originality, for which and for whom the writer of these lines confesses to have a profound respect. The pamphlet has 32 pages of 7½ by 5¼ inches of 9-point type, an index, and is well bound.

BUCHANAN'S "THE BLOOD IN HEALTH AND DISEASE"

The Blood in Health and Disease. By R. J. M. Buchanan, M. D., of the University of Liverpool. London and New York: Henry Frowde, Oxford University Press. 1909. Price $4.50.

This book is devoted to the study of the blood in a special and thorough manner. The volume of about 300 pages is illustrated with 20 plates of exquisite workmanship representing phases of the blood not usually met with in textbooks. The author is generous in his instructions for the preparation of specimens for microscopic examinations. The book should have a place in every physiologic and pathologic laboratory.

SINCLAIR AND MICHEL'S "GOOD HEALTH"

Good Health and How We Won It. By Upton Sinclair and Michael Williams. With 16 full-page illustrations from photographs. New York: Frederick A. Stokes Company. 1909. Price $1.20.

This book claims to be *the best* on the subject of proper living. Its claims are not very modest. This book outlines "this new health knowledge [which] has been amassed by many workers and, as in all cases of new knowledge, *there is much chaff with the grain.*" (Italics ours.)

The authors are thorough vegetarians and find the main cause of the destruction of nations to be meat eating, saying: "History has yet to record for us the tale of a nation passing safely through civilization, of a nation which has not been eventually destroyed by the civilization it so arduously won.' Frederick the Great, who was a disciple of Voltaire, once badgered his court

chaplain about Christianity and demanded the proof of its truth to be given in a single sentence, and at once! "In one word, Your Majesty," replied the doughty parson—"Jews." This single word will also do for all vegetarians and new-thought radicals. The book points to a phase in the general pretentiousness of the army of reformers, and cannot well be spared in the study of contemporaneous history.

LOCKWOOD'S "ANTISEPTIC SURGERY"

Antiseptic Surgery. By Charles Barrett Lockwood, Surgeon to St. Bartholomew's Hospital. Third Edition. London and New York: Henry Frowde, Oxford University Press. 1909. Price $1.50.

This is a most excellent handbook for the general and special practician in surgery. It is reliable, for it comes from a place where the best surgery in the world is performed, and for that reason also it is up-to-date. Its foot-notes giving sources of literature are decidedly valuable to the student. Its hand size and flexible binding makes it convenient for the physician's hand-satchel.

EBERHART'S "PRACTICAL X-RAY THERAPY"

Practical X-Ray Therapy. By Noble M. Eberhart, A. M., M. S., M. D. Second edition, revised and enlarged. Chicago. New Medicine Publishing Company. 1909. Price $1.50.

The second edition of Dr. Eberhart's excellent little manual on x-ray therapy has become necessary only two years after the first appearance of the work. This is in itself a proof of its value and a matter for congratulation. The present edition has been thoroughly revised and much new matter added, and it may be said to present the latest acquirements of our studies concerning the application of Roentgen rays to pathological conditions, in concise and very readable form.

The author announces that he is desirous of receiving clinical reports, for use in future editions. We urge every reader who is interested in this subject, to procure a copy of this book. It is indeed excellent.

THE CAUSE AND PREVENTION OF CONSUMPTION

The Illinois State Board of Health has issued its eight revised edition of its Bulletin (September, 1909) on The Cause and Prevention of Consumption. This bulletin needs no commendation. Its excellency has already sufficiently been pointed out in many places. The circular may be obtained by addressing the Secretary of the State Board of Health in Springfield.

JUETTNER'S "PHYSICAL THERAPEUTIC METHODS"

Physical Therapeutic Methods. A Handbook of Drugless Practice. By Otto Juettner, M. D., Ph. D. Cincinnati: Harvey Publishing Company. 1910. Price $5.00.

In his latest contribution to medical literature Dr. Juettner has returned from the enticing by-paths, into which his historical researches ("Daniel Drake and His Followers," Cincinnati, 1909) had led him, and he presents us now with what he calls a system of drugless practice. That the book is timely is vindicated in the foreword, in which the author properly claims it to be a prerogative of the *educated* physician to employ the physical methods of treatment, which have, all too long, been left for the exploitation of the public by the charlatan.

After three chapters devoted to the general consideration of drugless treatment of disease, of hygiene, diet, etc., the author discusses successively hydrotherapy, massage, electricity, the chapters dealing with the latter being preceded by one on psychotherapy. The latter, although not strictly speaking a part of physical therapeutics, undoubtedly must be considered in connection with it.

The list of diseases in which Dr. Juettner claims one or the other of the methods described to be of value, is along one and includes over 150 different affections. Dr. Juettner needs no introduction to readers

of CLINICAL MEDICINE, since his ideas and methods have been presented from month to month in the Post-Graduate section. His style is a fascinating one and his methods are of the practical kind which appeals to members of "the family."

The book is well written, beautifully printed and bound and freely illustrated. We can conscientiously recommend its study. Indeed, we hardly see how any man who has read our journal for the last two years can "hold back" from its immediate purchase.

HAAB'S "OPHTHALMOSCOPY"

Atlas and Epitome of Ophthalmoscopy and Ophthalmoscopic Diagnosis. By O. Haab, M. D., of Zürich. Second American Edition from the Fifth Revised and Enlarged German Edition. Edited by G. E. De Schweinitz, A.M., M. D., of the University of Pennsylvania. With 152 colored lithographic illustrations. Philadelphia and London: W. B. Saunders Company. 1909. Price $3.00, net.

This volume is an indispensable companion volume to the "Atlas of the External Diseases of the Eye" by the same author. Excellency both of text and illustrations remain the characteristics of every single volume of the fourteen volumes of this series which it has been our pleasure to review within these last ten years. It is gratifying to see that it pays to serve the profession well as these volumes do.

WHITELOCKE'S "SPRAINS"

Sprains and Allied Injuries of the Joints. By R. H. Whitelocke, M. D., Lecturer in Surgery at Oxford University. London and New York: Henry Frowde, Oxford University Press. 1909. Price $3.00.

Everything has its fate, and diseases and injuries are no exceptions to this rule, and so we do not meet with any monograph on sprains and with but meager accounts of these troublesome lesions in works on surgery. The book before us fills this unusual void in medical literature and fills it most gratifyingly, sufficiently so as to make of itself a present and future classic. The author is endowed with a master-mind and he has devoted eighteen years' special study to these injuries, enjoying, as he did, unusual opportunities. The book is liberally illustrated.

"ANNALS OF SURGERY"

With the December number the *Annals of Surgery* completes the fiftieth volume of its publication and the twenty-fifth year of its existence. The number before us is a Jubilee-number indeed, containing almost 400 pages of reading matter by many well-known contributors. We congratulate the *Annals* on the occasion of its anniversary and wish its editors and pub ishers continued success.

BEREAN'S "DIVINE HEALING"

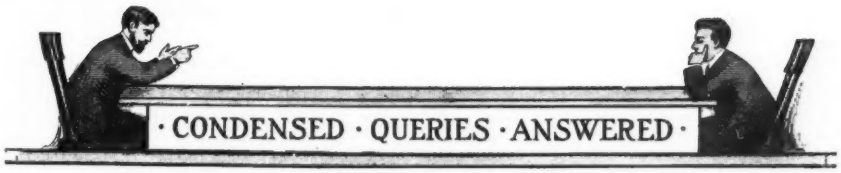
Divine Healing Under the Lens. By A. Berean, New York: Charles C. Cook. 1906. Price cloth, 50 cents; paper cover, 25 cents.

An excellent little book full of good logical answers to the unreasonable, unfair and fanatical claims of the brood of self-styled "divine healers," and this from a strictly orthodox Christian standpoint. Many a young physician, in addition to the usual troubles besetting a physician, is troubled also with these influential fanatics. I recommend to such the reading of this little book for self-confirmation and for aiding him in the refutation of these false claims.

"ESSENTIALS OF MEDICAL CHEMISTRY"

Essentials of Medical Chemistry. By Lawrence Wolff, M. D. The Seventh Edition by A. F. Witmer, Ph.G., M. D. Philadelphia and London: W. B. Saunders Company. 1908. Price $1.00.

This is one of those books, especially prepared for students' use for study and for preparing for examinations, the uniform excellence of which dispenses us from further commenting upon its advantages.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5533.—"Tuberculosis." W. J. E., California, desires to know the name of a hypodermic treatment for tuberculosis which, he says, he understands is placed upon the market by a firm "east of the Rockies."

We should be very much pleased to get this address ourselves. Perhaps some subscriber can give it. A physician in Michigan is injecting large doses of salicylic acid in an unknown vehicle with, we believe, a certain degree of success, but to the best of our knowledge and belief this treatment is not yet offered the profession. Of course there are any number of socalled treatments calling for the hypodermic use of one or more remedies. Nuclein is almost invariably exhibited hypodermically and various antiseptic solutions are employed in the same way.

QUERY 5534.—"Ulcus Gastrica." J. A. H., Illinois, has a patient, a man aged 55, who presents the following symptoms: "One or two hours after the midday meal he has a gnawing, burning pain in the epigastrium. Some days it is very annoying, on others is not felt at all. These symptoms have been felt for more than a year but seemed to be getting worse the last few months. Feels no pain until about 2 or 3 o'clock in the afternoon. Fifteen minutes after lying down at night all symptoms disappear. He has lost about 10 pounds in weight in the past six months. Patient says he feels as though there were a sore spot in his stomach. There is pus in the stomach-contents. How do you account for it?"

It is quite probable that you have to deal with gastric ulcer, although, of course, it is impossible to speak positively. Pus is not infrequently present in cases of active ulceration, streptococcic infection occurring. In phlegmonous gastritis pus is abundant. Streptococci or bacilli coli may be present. This condition is not common, but males are more frequently affected than females. In circumscribed phlegmonous pustules pain may or may not be severe; the temperature may remain normal for prolonged periods.

You should have specimens of the feces and urine examined in a case of this kind; only so can you get a clear idea of conditions. Give weight of patient; describe his habits, especially as to use of coffee, alcohol, tobacco, etc.; give occupation, also family history; outline diagrammatically the area of hepatic dulness and lowest line of stomach when in the upright position; by deep pressure discover the locality of the lesion; state condition of tongue. Is gas present or evidence of splenic or liver involvement?

In the meantime, Doctor, wash out the stomach carefully with solution of hydrogen dioxide, 1 part; water, 9 parts. Stop all ordinary food, allowing only small quantities of clam bouillon and peptonized milk, nourishing by rectal feeding in the regular manner. Prescribe silver oxide, gr. 1-12, half an hour before nourishment is taken, and papayotin, gr. 1, fifteen minutes after food. In addition give hydrastin, gr. 1-6; hyoscyamine, gr. 1-250; fluid extract of calendula, dr. 1, every four hours. If the man cannot accept this treatment, make his meals very light and

follow the same line of medication. In addition to the silver oxide order milk of bismuth (lac-bismo), 1 or 2 drams; it is best given one-half an hour after the silver oxide.

The writer has been very successful with these measures, but it is essential in the majority of cases to take the patient away from business for a week or ten days and during that period to rest the stomach almost entirely. The necessity for frequent enemata need not be pointed out. It may be stated that some very excellent results have been secured, recently, from the use of carbenzol (or ichthyol) and cinnamon water. From 10 to 15 minims may be given in capsule every three to four hours, 2 drams of cinnamon water being taken at the same time. The ichthyol may be dissolved in the cinnamon water, adjusted to teaspoonful doses.

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QUERY 5535.—"Dropsy During Pregnancy." T. A. S., Illinois, requests us to suggest a remedy to eliminate the albumin and relieve the static dropsies in first pregnancies.

No one remedy or combination of drugs can be prepared which will eliminate the albumin and relieve the static dropsies in all primiparas. In the first place, we cannot, by medicine, relieve pressure of the gravid uterus. The application of a snugly fitting abdominal binder is always desirable in these cases. Albuminuria is (as of course you know) a symptom merely; the causes and pathology of the renal disorders of pregnancy are not thoroughly understood.

Obstruction of the ureters, owing to the compression by the uterus, may exist, or the increased activity of the kidneys required to dispose of fecal waste may be a factor. The cardiac hypertrophy incident to pregnancy increases the blood pressure in the renal vessels, then, again, the uterus may so press upon veins or arteries, or both, as markedly to interfere with the renal circulation. Stasis in the kidneys may be caused by the increased intraabdominal pressure, and a reflex vasomotor spasm is not infrequently present, originating peripherally from the uterus. The hydremic condition of the blood in pregnancy must always be remembered. Finally, we have to consider the absorption into the blood of toxic material from the intestine, the action of the liver being markedly different and elimination falling below par in nearly all pregnant women.

Structural changes may have existed prior to pregnancy, but become evident only during that period. There is also a condition known as the kidney of pregnancy, frequently faultily diagnosed as nephritis. Here there is anemia of one or both kidneys with more or less degeneration of the epithelial cells.

From the foregoing one can readily see how essential it is that treatment be based upon a clear understanding of the pathological conditions present in the individual. Most physicians are familiar with the methods of examination of urine for albumin, and while we may not be able today to detect albuminuria, such conditions may be plainly apparent tomorrow.

A basal treatment may be said to consist in support of the uterus (abdominal binder), equalization of the circulation with small doses of aconitine, digitalin and strychnine or, still better, aconitine, cactin, brucine, given morning, noon and night; the administration of a morning laxative saline draught; stimulation of hepatic activity by the judicious use of podophyllin, juglandin or leptandrin (1-24 to 1-12 grain of podophyllin, 1-6 grain leptandrin, 1-6 grain juglandin) before the two principal meals of the day. Also asparagin or barosmin may be given with one grain of lithium benzoate. For diuretic purposes salt sponge-baths two or three times a week are extremely desirable. Where dropsy exists, elaterin followed by apocynin will prove almost a specific. The patient (if conditions are serious) may be placed in the wet-pack, and pilocarpine given to effect.

As we have said, this treatment is suggested as basal merely. If you will send a specimen of urine and a clear clinical picture of any individual that may be under treatment we shall be only too pleased to make more definite suggestions.

QUERY 5536.—"Diarrhea." M. P. C., Massachusetts, desires suggestions for a chronic, sour-smelling diarrhea? Also for the painless chronic diarrhea of old age.

In order to prescribe successfully it is essential to have a clear idea of the individual condition. However, it is safe to say that in this case a flushing of the bowel with small doses of calomel, podophyllin and bilein, followed by a half ounce of castor oil or saline laxative the next morning, and trihourly doses of the sulphocarbolates (5 to 10 grains), together with high enemata of an alkaline antiseptic, will prove efficacious.

If there is any pain use a combination of zinc sulphocarbolate and codeine for the first twenty-four hours instead of the combined sulphocarbolates, and when conditions are controlled give for a week or so bilein, pancreatin and sodium sulphocarbolate after the two principal meals of the day; also a good digestive combination.

The chronic diarrhea of old age requires, first, cleansing of the bowel, the wearing of a flannel band around the abdomen, the exhibition of hydrastin, gr. 1-6, and calcium sulphocarbolate, one grain, between meals; strychnine and juglandin or nux and capsicum before meals and papayotin with vegetable charcoal and sodium bicarbonate after food. Additional papayotin may be required. In many instances ten minims of dilute phosphoric acid with meals proves extremely useful in such cases. Nuclein, four to six minims, morning, noon and night, serves as an excellent vitoencitant in all senile cases.

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QUERY 5537.—"Bubo. Sore Leg." B. C. M., South Carolina, wants to know what to do for a patient who has had bubo and a sore on his leg, lower part, near the ankle, for a year or two, and which is now very offensive. The surface is ulcerated and is discharging.

Doctor, this is probably a syphilitic sore, but we cannot prescribe positively without a clearer idea of clinical conditions. What is the character of the ulcer—extent of sore? Are the edges inverted or undermined and is the base red and angry or covered with a gray slough? What is the general constitutional condition?

Better send a blood smear and specimen of urine, four ounces from the entire amount passed in twenty-four hours. In the meantime cleanse the ulcer thoroughly with hydrogen dioxide; cut away or curet any necrotic tissue or sloughing floor; then apply oil of turpentine (Merck) with a camel's-hair brush; snugly fit into the ulcer a piece of gauze saturated with turpentine, cover with another pad of gauze, a handful of cotton and a snug bandage. Repeat this dressing daily until granulation is established and the edges close in. Now place a few pin-point grafts upon the surface, after cleansing with boric-acid or normal saline solution (taking these "pin-point" grafts from the thigh or the arm of the patient). After placing them, flood the area with bovinine, cover with a piece of rubber tissue or oiled silk, perforated freely with pin holes; over this lay a piece of gauze soaked with bovinine, then another piece of oiled silk (unperforated); cover and bandage in the usual manner. Dress twice daily (not removing the perforated tissue unless signs of secretion or pus are evident), and then every second day, with great care, catching one corner of it with a pair of forceps and floating it up with boric-acid solution thrown under it with a dropper.

If this treatment does not avail, and you have the galvanic current, go over the entire area of the sore with a small flat copper electrode until the surface becomes green, then dress with equal parts of camphor and carbolic acid (mixed) for a few days, then with bovinine or sanguiferrin gauze.

Internally alternate an antiscorbutic or antisyphilitic combination with nuclein, morning, noon and night in six to eight-drop doses. This is basal treatment, but it proves effective in the great majority of cases.

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QUERY 5538.—"Enuresis Diurna et Nocturna." W. L. W., Texas, sends us for examination a sample of urine (the twenty-four-hour collection amounting to 19½ ounces) from an eight-year-old child. This child is a bed-wetter (also wets his clothes

during the waking hours) and has been all his life. We are asked to investigate the urine and see if we find in it anything calculated to bring about this state of things and advise the best treatment. There is no phimosis nor anything of that character. The child is well nourished for his age. The remedies that have served the doctor best are cantharidin and brucine.

The examination shows that there is insufficient urea, somewhat low specific gravity, insufficient solids and some mucin. Improve eliminative conditions and regulate the diet. Meanwhile examine the child minutely. It is not at all pleasant to medicate a child for weeks without appreciable results and then see some old woman give a remedy for pin worms, or relieve an impacted bowel, and put a stop to the whole trouble.

When enuresis nocturna and diurna exist together (which is very rarely the case) we may regard the condition as a neurosis with increased irritability of the vesical musculature and hyperesthesia at the neck of the bladder. In such cases small doses of hyoscyamine (or better still, atropine valerianate), brucine, hydrastine and thuja every four hours, and an extra dose at bedtime, will prove efficacious. Occasionally it is a good idea to give as an alternant 1-500 grain of cantharidin. This is, perhaps, the most generally applicable medication.

Hyperesthesia of the deep urethra or sphincter vesicæ *alone* will in some cases promptly disappear under hyoscyamine, 1-500 grain every four hours. Anemic, nervous children require the arsenates with nuclein or iron and strychnine phosphate. Indigestion, worms, spinal disease, stricture, fissure or fistula in ano, adenoids, undescended testicle, ocular defects and hernia have all caused persistent enuresis. Masturbation is a frequent cause, and enuresis diurna may be due to eyestrain—a proper pair of glasses putting a prompt end to the trouble.

You can easily see how liable a physician is to fail in these cases (even after careful thought), whereas another man may prescribe at random and "stop the leak" instanter. Study your patient, make quite sure that reflex sources of irritation do not exist, and then give the right remedy for the conditions you know to exist.

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QUERY 5539.—"A Physiology for the Working Physician." W. C. E., Minn., writes: "My physiology is a very old work. What physiology of recent date (quite complete without being too expensive) are you in the habit of recommending?

"I find THE AMERICAN JOURNAL OF CLINICAL MEDICINE wonderfully helpful. It seems to grow better all the time. The alkaloids have made me so much more efficient than I was formerly that I hardly know myself."

We recommend Hall's Physiology, published by Lea and Febinger, price $4.00, or Kirke's work, published by Wood at $3.00; a more extensive and, perhaps, authoritative volume, is Landois' (Blakiston), price $7.00. Another modern and very satisfactory physiology is Howell's, Saunders publisher, price $4.00. These are all standard works covering the ground fully. A smaller, quite unpretentious and extremely valuable and correct little book is Richie's "Elements of Physiology", published by The World Book Company, Yonkers, New York, price $1.50.

Your frank acknowledgment of the benefit derived from the adoption of alkaloidal methods gratifies us exceedingly. We think it would be safe to say that several thousand physicians in this country are prepared to say the same thing.

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QUERY 5540.—"Dosage of Arsenic Sulphide and Iodide." E. A. M., India, desires to know how arsenic iodide, arsenic sulphide and other "toxic tablets" are to be used in pediatric practice. He asks, "Am I to follow Shaller's rule and dissolve two tablets in twenty-four teaspoonfuls of water for each year of age?"

Arsenic iodide and arsenic sulphide, may be given to children over five in the ordinary dosage. Shaller's rule, as we have so often pointed out, is extremely conservative and applies mainly to aconitine. [Note the article by Shaller in THE AMERICAN JOURNAL

OF CLINICAL MEDICINE for December, 1909.]

A child of ten years may with perfect safety take a milligram (1-67 grain) of either drug three times a day. Under five years and over two, half this quantity. A child of a year or over should not take much more than a quarter of a milligram (1-268 grain). Powders may be easily prepared with milk sugar or the drug may be dissolved in water. Always give *after* meals.

The following is not at all a bad plan to follow, Doctor, when dealing with *ordinarily* toxic remedies. The standard granule, as we have pointed out, represents "the smallest known-to-be-effective dose for an adult;" hence may be regarded as being the average full dose for a child of ten or thereabouts; from five to ten years they will receive one-half; under five, one quarter—this being, of course a flexible standard. The conditions present in the individual and character of the drug itself must always be considered.

The cumulative effect of arsenic should be borne in mind and some such drug as iridin or stillingin given at the same time to insure elimination. The skin should be kept active with salt sponge-baths.

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QUERY 5541.—"Atropine and Hyoscine Not Compatible." F. O. P., Illinois, asks whether in case of postpartum hemorrhage where hyoscine, morphine and cactin had been used it would do to give atropine to check it. If so, how much? Also where a narcotic and sedative are needed and atropine is indicated also should the latter drug be used if the hyoscine-morphine combination has been administered earlier? The writer had an old man suffering from cancer of the bowel who had taken the hyoscine-morphine with good results. He was taken with severe congestion of the lungs and atropine was given with other medicine. He then received some more of the combination but results were poor. It seemed to make him more nervous. Was the atropine the cause?

Atropine must not be used after hyoscine-morphine combinations. Strychnine and ergotin should be given to counteract any relaxation of uterine muscle which may follow the exhibition of the anesthetic. In no case should any other derivative of the solanaceæ be administered to the patient receiving hyoscine, morphine and cactin. Intense excitement would probably be produced.

In the case you mention the atropine unquestionably might have caused the undesirable symptoms, but restlessness is usually present in pulmonary congestion.

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QUERY 5542.—"Wanted: An 'Eczema Cure.'" G. H., Ohio, in a recent letter says: "I have an old case of eczema; have tried many remedies, all no good. Now, if you know of a remedy which will help him he will send for a supply. He says he will prove a good-paying customer. Ask the maker to send him enough to convince him he will get well. He is discouraged."

Doctor, allow us to point out to you the undesirability of the procedure you advocate. You say, "Ask the maker to send my patient a supply and he will procure further supplies from you." How long would you keep your patient under these circumstances? We are continually trying to get the doctor to protect his own interests. In this connection we would urge you to read the editorial which appears in the December issue of THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

People are dropping away from the doctor fast enough in all conscience and joining cults of all kinds and degrees of absurdity. For this condition of things the doctor himself is, to a great extent, responsible.

In the first place, there is no "remedy for eczema." The treatment which would prove efficacious in A's case might be entirely unsuitable for B. The underlying derangement of the body-chemistry must be recognized and corrected. In nearly all eczematous patients there exists an acidemia which must be corrected. Send us a specimen of this man's urine and full but succinct clinical data and we shall be pleased to suggest a line of treatment which will, we think, prove curative. But let the pharmaceutical manufacturer deal with you, leaving you to collect

your fees, for work done, from the patient. You would be astonished to know how many times a day we have to decline to outline treatment for laymen who, in nearly every case, learn of our existence or the efficacy of alkaloidal preparations from the doctor.

QUERY 5543.—"Division of Vas Deferens for Masturbator." H. W. B., Kansas, believes division of the vas deferens (as recommended for sterilization of males) would be a good thing for a patient of his. The man moreover is anxious to have it done. The doctor says: "My patient is not what I call rugged, but bright and intelligent. He is not married but has been. Has always masturbated from two to three times a week and cannot resist the habit, and for the first minute or so after going to bed his heart is very irregular. He is 38 years old, and his physical condition is good. Now, would this little operation put a stop to his sexual ability and would semen be accumulated? If so, what would become of it? During intercourse emission is premature. I have recommended cold sounds. He says he is going to be cured if he has to be castrated."

Division of the vas deferens in the case you describe would be entirely useless, and it seems that such procedures as this man contemplates are beyond the point of reason. Were it desirable to prevent his procreating his kind a division of the vas would be an effective procedure. Any man who desires to do so can stop the undesirable habit to which he is addicted. We suggest that you blister the corona glandis with cantharides, keeping it just tender enough to prevent handling. We have never yet failed to secure a cure in a case of this kind provided, that is, the patient were sane and really desired to get well.

Why should not this man marry? That, it seems to us, is the most satisfactory way out of the trouble. Separation of the vas would in no way lessen the sexual desires, but it would of course render him incapable of fertilizing the female.

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QUERY 5544.—"Treatment of Chilblains." H. D., Wyoming, wishes to know what he shall do to cure, or at any rate to relieve, "chilblains" on the feet (mostly the heel) of an adult.

Chilblains can be readily cured by washing the feet with a tar or some similar soap and hot water, then applying camphor-menthol on gauze compresses. Balsam of Peru, drs. 2; carbenzol, drs. 2; lanolin, drs. 4, makes an excellent application, but perhaps one of the most useful formulæ is camphor, chloral and carbolic-acid crystals, equal parts of each rubbed down in a mortar and applied (after washing the feet well as directed) with a camel's-hair brush. This will put a prompt stop to the itching.

Internally give small doses of blue mass and soda with podophyllin at half hourly intervals every other night for a week. Strychnine and cactin (or digitalin) three times a day, and the three arsenates with nuclein after meals.

A coating of collodion in which orthoform has been dissolved has proven extremely useful in the writer's practice. Two or three coats should be applied at bedtime—always after the foot has been thoroughly soaked in hot salt water. Aconite and chloroform liniment is another excellent application. Resorcin with ichthyol and tannic acid may be used if skin is unbroken. One part of each is added to five of water and applied at bedtime.

Tincture of benzoin applied thoroughly after a hot salt foot-bath serves the purpose excellently. Always improve circulatory conditions and give eliminants.

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QUERY 5545.—"The Widal Reaction." S. A. D., Arkansas, asks for "some literature describing Widal's blood test for typhoid fever."

You will find the Widal test described in any modern textbook on physical diagnosis. The lobe of the patient's ear should be pricked with a sharp sterile lancet, the first drop of blood allowed to escape and the next drop caught upon a clean glass slide. Cover with a cover glass (first sliding the two surfaces together so as to spread the smear) and dry by waving over the alcohol flame. Fasten the slides together with gummed

paper, label with the name of the patient and mail to the laboratory.

Some of the large manufacturing houses now provide a bottle of sterile suspension of the bacillus typhosus, together with test-tubes, lancet and tube for collecting blood. Directions for making the Widal test accompanies the outfit. For full technic see Hare's "Practical Diagnosis." This test, however, is not reliable except in the hands of an experienced observer. See Ewing on "The Blood."

We advise you strongly to secure the specimen of blood and forward same to a well-equipped laboratory. In an emergency merely a drop of two of blood on a card wrapped in clean white paper and mailed is all the pathologist requires.

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QUERY 5546.—"Uterine Cancer." A C., New York, has a patient suffering from uterine cancer and desires to learn of some local application that is a better disinfectant and deodorizer than iodoform."

Presuming that the case is inoperable, the only thing that can be done is to keep the patient as comfortable as possible and remove the odor from the discharge, which latter should not be checked. Under the circumstances you will find carbenzol or ichthyol tampons excellent. Thoroughly cleanse the parts with an alkaline antiseptic solution, then pack strips of gauze or wool tampons soaked with the selected medication into the fornices and vaginal canal, renewing the application as often as may be necessary. Chinosol in a 1 : 500 or 1 : 1000 solution may be used to cleanse the parts, and orthoform insufflations to relieve pain. Calcium carbide, a piece the size of a walnut, may be placed in contact with the diseased area and the vagina filled with iodoform (or chinosol) gauze. After a few days give a copious hot douche of corrosive-sublimate solution. This removes the calcium oxide. The tissues will now appear grayish and smooth. Pain and hemorrhage are controlled by this method.

Copious applications of papayotin and pepsin may be made every few days: after three hours a hot saline douche is given and the vagina packed with gauze soaked in olive oil holding terebene in solution (terebene 1, olive oil 16 parts.) Pyoktannin-blue is often useful. Apply as dusting powder, or in 1 : 300 solution injected every few days here and there into infiltrated tissue; or in crayon form, combined with tannic acid, opium, olive oil and cacao-butter. Hyoscine, morphine, cactin and pilocarpine (the modified H-M-C combination) may be given internally to maintain comfort.

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QUERY 5547.—"Calcium Sulphide Saturation." D. R. P., Illinois, has never been able to saturate a patient with calcium sulphide. "I have," he writes, "given one grain every two hours for two days to one patient and every hour for a week to another but have never been able to get odor from the breath (except eructations from stomach) and, at times, patients have rebelled against taking the drug. What's the reason?"

The saturation of patients with calcium sulphide is one of the most simple things imaginable to accomplish. Do not use compressed tablets or pills of calcium sulphide but the 1-6-grain granule, giving 1-6 or 1-3 of a grain hourly for twelve to twenty-four hours, then 1-3 of a grain four to six times daily. By the end of two days at the longest the breath and skin will smell strongly of sulphureted hydrogen. This is "saturation." We have pointed out many, many times that the compressed tablet is not satisfactory. Calcium sulphide is a peculiar drug and when subjected to pressure becomes as hard as stone. Most of the tablets upon the market, therefore, pass through the alimentary canal unchanged; granules disintegrate rapidly. A one-grain tablet given every two hours for two days, would not be as satisfactory (if any result followed) as 1-6 grain hourly for half the period.

We have never failed to obtain the desired results and we are quite sure that you will be equally successful from this time forward. Remember the necessity for cleaning out and keeping clean the intestinal canal.

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QUERY 5548.—"Calomel and Calx Iodata Incompatible." W. S. H., North Carolina,

asks: "Is there any danger of calomel and calcidin forming iodide of mercury when administered simultaneously?"

We never should administer calomel and calx iodata simultaneously. Calomel is given in small repeated doses; calx iodata, as a rule, at longer intervals and for a prolonged period.

Calomel, 1-6 grain, with or without podophyllin (or similar drug), 1-6 grain, half-hourly for four to six doses is the usual preliminary "clean-out" medication of the positive therapeutist. The administration of calx iodata, when indicated, would follow or, for that matter, it might *begin* concurrently, but, save in some emergency (such as croup), during the hour or hour and a half in which calomel is being given calx iodata would only be given once. In croup, or where very *prompt* effect is needed, 1-3 to 1 grain would be given every fifteen minutes; however, in such a case the relief of the immediate symptoms would be the main thing, the calomel following. No danger need be apprehended from the use of calomel and calx iodata given together dosimetrically, although it would not be therapeutically or chemically correct to give these two drugs in conjunction for longer than a short time.

Our chemists have tested out the reaction of calx iodata on calomel and find that they are incompatible. The interaction will go on as long as there is any calomel remaining, resulting in the formation of calcium chloride and mercurous iodide. This means the using up of considerable of the available iodine-content of the calx iodata, thus decreasing its therapeutic value. Moreover, calomel is not absorbed into the system but mercuric iodide is. This would mean another complication. While no toxic effect need be apprehended from the minute doses for brief periods, it is highly desirable to keep the two drugs separate.

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QUERY 5549.—"Partial Paralysis and a Dog-bite." J. R. L., South Carolina, describes the case of Mr. H. who in the spring of 1908 was bitten by a rabid dog. No serious results followed until about the middle of July, when there was suppression of renal action for some thirty or forty hours, a uremic toxemia supervening which lasted several days; the bowels were active all the while. There followed a slight paralysis of the left side of his face with constant dribbling of saliva, enough to wet the pillow during sleep. At present he cannot see out of his left eye, but the right one appears to be all right. His speech is bad, locomotion also; mind is foggy. The patient has been on tonics and alteratives all the time, but with unsatisfactory results. The patient is a well-educated man and of good family. The question is whether the bite of the rabid dog had anything to do with the case; suggestions are requested.

Obviously it is impossible to express an opinion as to whether there is any connection between the existent conditions and the dog-bite without having a more definite picture of the patient's prior history and present physical condition. The anuria and uremic toxemia would naturally lead one to suspect nephritis, and we surmise the disturbance of vision is of renal origin.

It would be advisable to send specimens of saliva, urine and blood to the laboratory for examination.

Then we advise to test the reflexes carefully (especially ocular and patellar), examine the spine for hyperesthetic and anesthetic areas, and look carefully into the past history for possible luetic taint. Further, was the dog definitely proven rabid? You do not state the patient's age, nor in what spot he was bitten, or the remedial procedures which were instituted at the time. As you are aware, symptoms of hydrophobia may not appear for a year although usually making their appearance in two or three months. A serious toxemia might follow a dog-bite even though hydrophobic symptoms failed to develop.

In this particular instance there does not seem to be any valid reason for connecting the bite with the later disturbances. Have you tried to control salivary flow with atropine or hyoscyamine?